GOVERNMENT OF BENGAL.

REPORT

ON THE

ADMINISTRATION OF BENGAL

DURING

1916-17.

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TABLE OF CONTENTS.

(The maximum number of pages prescribed for Part I (General Summary) is 10 pages, and for Part II, 150 pages.)

PART I.

	Pages.
General Summary	i—xiv

PART II.

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

	Page.	Para.
Changes in the Administration—		
Police	1	1
Proposed Department of Public Prosecution	1	2
Relations with Tributary States and Frontier Affairs—		
Cooch Behar—		
Council	1	3
State Railways	2	4
Finance	2	5
Crops and condition of the people	2	6
Criminal Justice	2	7
Education	2	8
Public health	2	9
Hill Tippera—		
Measures for improvement of the State	2	10
Political Agent	2	11
Revenue and Finance	2	12
Protection	2	13
Weather and crops	2	14
Public health	2	15
Condition of the people—		
Agricultural classes	3	16
Wages and salaries	3	17

CHAPTER II.—ADMINISTRATION OF THE LAND.

Realisation of Revenue—		
Total collections	4	18
Collections in—		
(*a*) Permanently-settled estates	4	19
(*b*) Temporarily-settled estates	4	20
(*c*) Estates held direct by Government	4	21
Miscellaneous land revenue	4	22
Changes in the land revenue demand of temporarily-settled estates and estates under direct management	5	23
Redemption of land revenue	5	24
Remittance of land revenue and rent by money-orders	5	25

	Page.	Para.
Coercive measures—		
(*a*) Sale laws	5	26
(*b*) Certificate procedure	5	27
Realisation of Government and other demands by imprisonment	5	28
Processes	5	29
Other revenue work—		
Land registration	6	30
Partition	6	31
Land acquisition	6	32
Loans—		
(*a*) Land Improvement Loans Act	6	33
(*b*) Agricultural Loans Act	6	34
Surveys—		
Outturn of the year	7	35
Land Records and Settlements—		
General	7	36
Land Revenue settlements	7	37
Other settlements	7	38
Dacca	7	39
Mymensingh	7	40
Midnapore	7	41
Rajshahi	8	42
Tippera and Noakhali	8	43
Minor settlements	8	44
Boundary marks	8	45
Waste Lands—		
Waste lands	8	46
Government Estates—		
Number and management	9	47
Grant for improvements	9	48
Colonization in the Bakarganj Sundarbans	9	49
Roads	9	50
Education	9	51
Sale of estates	9	52
Wards and Attached Estates—		
Number of estates and payment of Government demands	10	53
Rent and cesses due to superior landlords	10	54
Collection of rent and cesses	10	55
Balances of rent and cesses due to estates	10	56
Debts of estates	10	57
Management charges	11	58
Improvements	11	59
Lady Adviser	11	60
Education of the wards	11	61
Revenue and rent-paying classes—		
Bengal Tenancy Act	11	62
Relations between landlords and tenants	11	63
Rent receipts	12	64
Illegal cesses	12	65

CHAPTER III.—PROTECTION.

Legislative authorities		
Course of Legislation—		
Acts passed during 1916-17	13	66
Bills pending „ „	13	67

	Page.	Para.
Bengal Police—		
Administration	13	68
Recruitment	14	69
Discipline	14	70
Buildings	14	71
Military Police	14	72
River „	14	73
Village „	14	74
Crime	15	75
Criminal Investigation Department	15	76
Criminal Tribes	15	77
Revolutionary Crime	15	78
Mortality caused by wild animals—		
Wild animals	16	79
Snakes	16	80
Cattle killed by wild animals	16	81
Destruction of wild „	16	82
Police Administration in Calcutta—		
Civil Armed Police	16	83
Reorganization of the superior staff	16	84
Bonus to constable recruits	17	85
Crime	17	86
Juvenile offenders	17	87
Criminal Justice—		
Judicial staff	17	88
False cases	18	89
True „	18	90
Original Jurisdiction—		
I.—Magistrates' Courts—		
Total of cases for trial	18	91
A.—Presidency Magistrates, Calcutta—		
Cases for trial	18	92
Results of trials	18	93
B.—Magistrates outside Calcutta—		
Cases for trial	19	94
Results of trials	20	95
Punishments	20	96
Miscellaneous Proceedings	21	97
Code of Criminal Procedure, Chapter VIII	21	98
Ditto ditto Chapters X, XII and XXXVI	21	99
Witnesses	21	100
II.—Courts of Sessions—		
Commitments	21	101
Result of trials	22	102
Punishments	22	103
Jury trials	22	104
Trials with the aid of assessors	22	105
Duration of cases	22	106
Witnesses	23	107
Commitments, etc., to the High Court	23	108
Appellate Jurisdiction—		
I.—High Court—		
Appeals	23	109
Result of trials	23	110
Appeal against acquittal	23	111

	Page.	Para.
II.—Appellate Courts subordinate to the High Court—		
Sessions Courts	23	112
Magistrates' Courts	24	113
Superintendence, Reference and Revision—		
I.—High Court—		
References under section 307 of the Code of Criminal Procedure	24	114
References under section 374 of the Code of Criminal Procedure	24	115
References under section 341 of the Code of Criminal Procedure	24	116
Revision	24	117
Applications for transfer	24	118
II.—Courts subordinate to the High Court—		
Sessions Courts	25	119
Magistrates' Courts	25	120
III.—General—		
Trials of European British subjects	25	121
Results of revisional work	25	122
Receipts and charges	25	123
Criminal Justice in the Scheduled District of the Chittagong Hill Tracts—		
Chittagong Hill Tracts	26	124
Jails—		
Jail population	26	125
Health and mortality of prisoners	26	126
Dietary	26	127
Juvenile Jail	26	128
Jail industries	27	129
Warder service	27	130
Civil Justice—		
Judicial staff	27	131
Original Jurisdiction—		
I.—High Court—		
Original suits	28	132
Prize cases	28	133
Cases under the extraordinary jurisdiction	28	134
Probates and letters of administration, etc.	28	135
References to take accounts, etc.	28	136
Conveyances and sureties	29	137
Appeals from the original jurisdiction	29	138
References from the Calcutta Court of Small Causes	29	139
Applications for the transfer of cases from the Calcutta Court of Small Causes	29	140
Insolvency cases	29	141
Duration of sittings	29	142
Appeals to the Privy Council	29	143
Receipts and expenditure	29	144
Taxing office	29	145
II.—Civil Courts in the mufassal subordinate to the High Court—		
Original suits instituted	30	146
Local distribution	30	147
Nature of suits instituted	30	148
Number of suits disposed of and the results of suits decided	30	149
Applications for retrial	31	150
Suits decided by Munsifs	31	151
Suits disposed of by Subordinate Judges and by Small Cause Court Judges	31	152
Average duration of suits	31	153
Pending suits	31	154
Execution proceedings	32	155
Miscellaneous cases	32	156

	Page.	Para.
III.—Calcutta Small Causes Court—		
Number of suits	32	157
Mode of disposal	32	158
Appellate Jurisdiction—		
I.—High Court—		
Appeals under the Letters Patent	32	159
II.—Appeals from the Subordinate Civil Courts—		
Appeals to the High Court from Subordinate Courts	33	160
Appeals pending	33	161
Results of appeals	33	162
Appeals to the Privy Council (including appeals from Bihar and Orissa over which this Court continued to exercise jurisdiction in pursuance of the Letters Patent of 1916 establishing a High Court at Patna)	34	163
Results of appeals to the Privy Council	34	164
III.—Appellate Courts subordinate to the High Court—		
Appeals instituted	34	165
Appeals disposed of	34	166
Appeals pending	34	167
Result of appeals	35	168
General	35	169
Inspection	35	170
Receipts and charges of the Civil Courts	35	171
Civil Justice in the Scheduled District of the Chittagong Hill Tracts—		
Chittagong Hill Tracts	35	172
Registration—		
Progress	35	173
Statistics	36	174
Brief summary of results	36	175
Working of the Marriage Act, III of 1872	36	176
Working of the Muhammadan Marriage Registration Act and the Kazis Act	36	177
Working of the Indian Companies Act, 1913 (VII of 1913)	37	178
Working of the Provident Insurance Societies Act, 1912 (V of 1912)	37	179
Municipal Department and Local Self-Government—		
Municipalities outside Calcutta—		
Number of municipalities and rate-payers	37	180
Election	37	181
Assessment and taxation	37	182
Revision of assessment	38	183
Collections	38	184
Income and expenditure	38	185
Income—		
Revenue	38	186
Grants and contributions	38	187
Expenditure—		
Expenditure	39	188
General administration and collection charges	39	189
Fire prevention and control	39	190
Lighting	39	191
Water-supply	39	192
Drainage	40	193
Conservancy	40	194
Sanitary officers	40	195
Hospitals and dispensaries	40	196
Registration of births and deaths	40	197
Public Works	40	198

	PAGE.	PARA.
Expenditure—*concluded.*		
Public instruction	40	199
Loans	41	200
Closing balance	41	201
Audit of accounts and embezzlements	41	202
Howrah	41	203
Administration	42	204
Calcutta Municipality—		
Introductory	44	205
Public Health—		
Birth and death rates	44	206
Revenue funds	44	207
Loan security	44	208
Assessment Department	44	209
Survey ,,	44	210
Collection ,,	44	211
Bustee ,,	44	212
Stores	44	213
Water-supply	45	214
Drainage	45	215
Lighting Department	45	216
Roads	45	217
Conservancy	45	218
Markets	45	219
Slaughter house	45	220
Food inspection	46	221
Municipal Magistrate's Courts	46	222
Hackney Carriage Department	46	223
Education	46	224
CALCUTTA IMPROVEMENT TRUST—		
Power of the Trust to acquire surplus lands	46	225
Projected public streets	46	226
Finance	47	227
DISTRICT BOARDS—		
Appointment of non-official Chairman	47	228
Local Boards	47	229
Union Committees	47	230
Income	47	231
Balances	48	232
Expenditure	48	233
District Board receipts	49	234
Expenditure	49	235
Administration	49	236
Education	49	237
Technical and Industrial schools	49	238
Medical aid	50	239
Sanitation	50	240
Civil Works	50	241
Water-supply	50	242
Drainage	51	243
Arboriculture	51	244
Veterinary charges	51	245
Railways	51	246
Famine relief	51	247
Closing balances	51	248
VOLUNTEERS—		
Total strength	52	249

	Page.	Para.
MARINE—		
Port of Calcutta—		
Bengal Pilot Service	52	250
Vessels piloted	52	251
Pilotage receipts	52	252
Casualties to vessels	52	253
Examinations	53	254
Port of Chittagong—		
Vessels entering and leaving the port	53	255
Casualties to vessels	53	256
Examinations	53	257
Shipping Officer, Calcutta and Kidderpur—		
Finance	53	258
Seamen shipped and discharged	53	259
Repatriation of distressed seamen	53	260
Chittagong Shipping Office—		
Finance	53	261
Seamen shipped and discharged	53	262
Health of the Port of Calcutta—		
Inspection of vessels	54	263
Health of seamen	54	264
Infectious diseases	54	265
Health of the Port of Chittagong—		
Infectious diseases	54	266
Inspections	54	267
Agency for Government Consignments—		
Finance	54	268
Tonnage handled	54	269
Bengal Smoke Nuisances Commission—		
Inspections and observations	54	270
Amendment of the Bengal Smoke Nuisances Act and the issue of rules under the amended Act	55	271
Prosecutions under the Act	55	272
Howrah Bridge—		
Receipts and charges	55	273
Proposal for new bridge	56	274
Repairs of the existing bridge	56	274
Chittagong Port Trust—		
Finance	56	275
Capital expenditure	56	276
Assets and liabilities	56	277
Arrival of vessels	56	278
Value of trade	56	279
Training works in the river Karnafuli	56	280
Bengal Steam Boiler Commission—		
Inspection of boilers	56	281
Calcutta Port Trust—		
Income and expenditure	57	282
Capital expenditure	57	283
Capital account	57	284
Night navigation	57	285
Regulation of country boat traffic in the port at night	57	286
Financial result	58	287

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

	Page.	Para.
AGRICULTURE—		
Administration	59	288
Agricultural education	59	289

	Page.	Para.
AGRICULTURE—*concluded.*		
Research and experiment	59	290
Cattle breeding	60	291
Sericulture	60	292
Fisheries	60	293
WEATHER AND CROPS—		
Character of the season	61	294
Bhadoi crops (excepting jute)	61	295
Jute	62	296
Winter rice	62	297
Sugarcane	62	298
Rabi crops	62	299
Cotton	62	300
Area under cultivation	63	301
Prices	63	302
CO-OPERATIVE SOCIETIES—		
Developments	63	303
Central Banks	63	304
Provincial Co-operative Bank	63	305
Agricultural Societies	63	306
Non-agricultural Societies	64	307
HORTICULTURE—		
Royal Botanic Garden, General	64	308
Plant and seed distribution	64	309
Herbarium and library	64	310
Publication	64	311
Calcutta gardens	64	312
Lloyd Botanic Garden, Darjeeling	64	313
CINCHONA PLANTATION AND FACTORY—		
Plantations	64	314
Outturn	65	315
FORESTS—		
Administration	65	316
Communications and buildings	65	317
Forest offences	65	318
Protection from fires	65	319
Protection from cattle	65	320
Exploitation	65	321
Mortality caused by wild animals	66	322
General	66	323
Financial results	66	324
MANUFACTURES AND MINES—		
Jute	66	325
Cotton	66	326
Tea	66	327
Coal	66	328
Iron ore	67	329
Saltpetre and salt	67	330
Paper	67	331
Silk	67	332
Sugar	67	333
Wool	67	334

	PAGE.	PARA.
Miscellaneous manufactures in each Division—		
Burdwan	67	335
Presidency	67	336
Dacca	67	337
Chittagong	67	338
Rajshahi	68	339
WORKING OF THE INDIAN FACTORIES ACT, 1911 (XII OF 1911)—		
Number of factories and system of work	68	340
Inspection	68	341
Sanitary and housing arrangements, water-supply, etc.	68	342
General health of operatives	68	343
Wages and general condition	68	344
Employment of women and children	69	345
Accidents	69	346
Fencing of machinery	69	347
Prosecutions	69	348
Fire	69	349
Strikes	69	350
TRADE—		
I.—Foreign Sea-borne Trade—		
Foreign trade	69	351
Treasure	69	352
Imports of Merchandise—		
Principal articles imported into Calcutta	70	353
Cotton manufactures	70	354
Sugar	70	355
Metals	70	356
Machinery and millwork	71	357
Mineral oil	71	358
Salt	71	359
Hardware and cutlery	71	360
Glass and glassware	71	361
Import trade of Calcutta with other countries	71	362
Exports of Merchandise—		
Foreign trade	72	363
Jute and jute manufactures	72	364
Tea	72	365
Hides and skins	73	366
Lac	73	367
Metals and ores	73	368
Raw cotton	73	369
Indigo	73	370
Coal	73	371
Saltpetre	73	372
Export trade of Calcutta with other countres	74	373
II.—Frontier Trade—		
Frontier trade	74	374
Imports into Bengal	74	375
Exports from Bengal	74	376
III.—Coasting Trade—		
Coasting trade	74	377
IV.—Trade by Railway and River—		
Railway and river-borne trade	75	378
Imports by railway and river into Bengal	75	379
Exports by railway and river from Bengal	75	380

	Page.	Para.
PUBLIC WORKS—		
Establishment—		
Public Works Department Reorganization Committee	75	381
Fees of Electrical Engineers of Government	76	382
Utilization of the services of the Electrical Adviser to the Government of India	76	383
BUILDINGS—		
Imperial Works—		
Salt golas	76	384
Post and Telegraph offices	76	385
Settlement buildings	76	386
Treasury and Currency buildings	76	387
Victoria Memorial Gardens	76	388
Mint	76	389
Observatory	77	390
Secretariat buildings	77	391
Flag staff	77	392
Provincial Civil Works—		
Revenue and Judicial Courts	77	393
Subdivisional Officer's and Munsifs' residences	77	394
Circuit house	77	395
Excise	77	396
Residences for Local Government	77	397
Secretariat offices	77	398
Residences for Government officials	77	399
Jails	78	400
Police	78	401
Educational	79	402
Hospitals and Dispensaries	79	403
Registration	79	404
Public Works Department buildings	79	405
Archæological works	80	406
Ecclesiastical	80	407
Miscellaneous	80	408
Contribution works	80	409
Communications—		
Calcutta	80	410
Jessore	80	411
Darjeeling	80	412
Rajshahi	80	413
Jalpaiguri Duars	80	414
Chittagong	81	415
Chittagong Hill Tracts	81	416
Arboriculture—		
Arboriculture	81	417
Miscellaneous Public Improvements—		
Calcutta Maidan	82	418
Darjeeling	82	419
Barisal	82	420
Madaripur and Patuakhali	82	421
Noakhali	82	422
Rates for electric current in Calcutta	82	423
Contribution Works—		
Darjeeling	82	424
RAILWAYS—		
Administration	82	425
Mileage	83	426
Lines under construction	83	427
Surveys sanctioned	84	428

	Page.	Para.
CANALS—IRRIGATION AND NAVIGATION—		
Capital and Revenue Accounts	85	429
Irrigation	85	430
Lengths of canals	86	431
Navigation	86	432
Classification of irrigation and navigation works	87	433
South-Western Circle—		
Major Irrigation Works—		
Midnapore Canal—Capital outlay	88	434
Rainfall	88	435
Irrigation	88	436
Navigation	88	437
Financial results	88	438
Hijili Tidal Canal—		
Hijili Tidal Canal	88	439
Minor Works and Navigation—		
Calcutta and Eastern Canals—		
Capital account	88	440
Navigation receipts	89	441
Madaripur Bhil Route—		
Capital account	89	442
Navigation receipts	89	443
Orissa Coast Canal—		
Orissa Coast Canal	89	444
Gaighatta and Baxi Khal—		
Gaighatta and Baxi Khal	89	445
Eden Canal—		
Eden Canal	89	446
Uttarbhag Lock—		
Uttarbhag Lock	90	447
Bidyadhari River	90	448
Investigation (Damodar river)	90	449
Floods	90	450
Central Circle—		
Minor Works and Navigation—		
Nadia Rivers	90	451
Bhagirathi River	90	452
Bhairab-Jalangi River	91	453
Mathabhanga River	91	454
Ganges River between Rajshahi and Goalundo	91	455
Entrance to the Bhagirathi River from the Ganges	91	456
Discharge observations	91	457
Upper Hooghly and its feeder rivers	92	458
Gorai River	92	459
Floods	92	460
Anti-malarial projects	92	461
Northern Circle—		
Ganges River at Rampur Boalia	92	462
Eastern Circle—		
Dhareswari and Buriganga Rivers	92	463
EMBANKMENT AND DRAINAGE—		
Expenditure	92	464
Lengths of embankments	92	465
Floods and breaches	93	466
Surveys	93	467

	Page.	Para.
Works undertaken under the provisions of—		
(*a*) Bengal Drainage Act, VI of 1880	94	468
(*b*) Bengal Sanitary Drainage Act, VIII of 1895	94	469
(*c*) Bengal Embankment Act, II of 1882	94	470

CHAPTER V.—REVENUE AND FINANCE.

A.—Gross Revenue—		
Gross Revenue	95	471
B.—Imperial Revenue and Finance—		
Receipts	96	472
Expenditure	97	473
Land Revenue	98	
Canal ,,	98	
Sources of revenue other than land—		
Customs—		
Revenue from Customs	98	474
Net income	98	475
Cases under the Sea Customs Act	98	476
Cases under the Merchandise Marks Act	98	477
Salt—		
Administration	99	478
Imports	99	479
Consumption and prices	99	480
Prosecutions	99	481
Financial results	99	482
Trade in saltpetre	99	483
Excise—		
Reorganization of the Excise and Salt Departments	99	484
Excise Advisory Committee and Licensing Boards	99	485
Revenue	100	486
Country spirit	100	487
Tari	100	488
Pachwai	100	489
Foreign liquor	100	490
Ganja	100	491
Bhang	100	492
Charas	101	493
Opium	101	494
Cocaine	101	495
Excise offences	101	496
Stamps—		
Revenue	101	497
Judicial stamps	101	498
Non-judicial stamps	101	499
Sale of stamps	102	500
Deficient duty	102	501
Prosecution under the Stamp Act	102	502
Working of Section 19 H of the Court Fees Act	102	503
Income-tax—		
Financial results	102	504
Collection	102	505
Assessments	102	506
Incidence of tax	102	507

	Page.	Para.
C.—Revenue and Finance other than Imperial—		
Provincial Finance—		
Receipts and expenditure	103	508
Receipts	103	509
Expenditure	104	510
Local Funds—		
Balances	105	511
Grants	106	512
Road and Public Works Cesses—		
Rate	106	513
Demand and Collection	107	514
Working of the Certificate Procedure	107	515
Valuation and revaluation	107	516
Municipal Revenue	107	

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICE.

Vital Statistics—		
General results	108	517
Birth-rate	108	518
Death-rate	108	519
Verification of vital statistics	108	520
Fever	108	521
Malaria	109	522
Stegomya enquiry	110	523
Cholera	110	524
Plague	110	525
Emigration—		
Colonial Emigration—		
Administrative measures	110	526
Emigration Agencies and despatch of emigrants	110	527
Recruitment of emigrants	110	528
Sanitary arrangements in depôts	110	529
Savings of emigrants	110	530
Disposal of estates of deceased emigrants	111	531
Financial	111	532
Inland Emigration—		
Administrative measures	111	533
Recruitment and recruiting agencies	111	534
Number of emigrants embarked at Goalundo	111	535
Places of accommodation and rest-houses	111	536
Repatriation	111	537
Medical Relief—		
Calcutta Medical Institutions—		
General	112	538
Tropical School of Medicine	112	539
Finance	112	540
Number of patients	112	541
Charitable Hospitals and Dispensaries outside Calcutta—		
Number of Institutions	112	542
Number of patients	113	543
Finance	113	544
Leper Asylums	113	545

	Page.	Para.
EDEN SANITARIUM, DARJEELING—		
Admission	113	546
Finance	113	547
LUNATIC ASYLUM—		
Administration, discharge, population and accommodation	113	548
Extension of the Lunacy Act to the insane ward of the Gobra Leper Asylum	113	549
Health of lunatics	113	550
Expenditure	114	551
SANITATION—		
Sanitary Board	114	552
Sanitary Works	114	553
Sanitary improvements	114	554
VACCINATION—		
Small-pox	114	555
Vaccination	114	556
POISONS ACT—		
Working of the Poisons Act	115	557

CHAPTER VII.—INSTRUCTION.

GENERAL SYSTEM OF PUBLIC INSTRUCTION.

EDUCATION—		
General results	116	558
Collegiate education	116	559
Secondary education	116	560
Primary education	117	561
Training of teachers	117	562
Professional, Technical and Industrial Education	117	563
Education of Indian Girls and Women	117	564
Education of Europeans and Anglo-Indians	117	565
Muhammadan education	117	566
Education of special classes	118	567
Hostels	118	568
LITERATURE AND THE PRESS—		
Bengal Library and working of Act XXV of 1867	118	569
Literary publications	118	570
Press and the working of the Indian Press Act	118	571
Working of the Naval and Military Ordinance and the Indian Press Act	118	572
Topics discussed in the Press	119	573

LITERARY SOCIETIES.

ARTS AND SCIENCES—		
Government School of Art, Calcutta	119	574
Government Art Gallery, Calcutta	119	575
Other Schools of Art	119	576
Music schools	119	577
Civil Engineering College, Sibpur	119	578
Dacca School of Engineering	120	579
Mining instruction in coal fields	120	580
Pleaders' Survey Examination	120	581
Survey education	120	582
Joint Technical Examination Board	120	583

	Page.	Para.
Arts and Societies—*concld.*		
City and Guilds of London Institute Technological Examination	121	584
Government Weaving Institute, Serampore and outlying centres	121	585
Schools for juvenile offenders	121	586
Government Commercial Institute, Calcutta	121	587
"B" Classes	121	588

CHAPTER VIII.—ARCHÆOLOGY.

Archaeology—		
Establishment	122	589
Monuments and Antiquities	122	590
Working of the Treasure Trove Act, VI of 1878	122	591

CHAPTER IX.—MISCELLANEOUS.

Ecclesiastical Jurisdiction		
Ecclesiastical—		
Establishment	123	592
Chemical Examiner's Department—		
General	123	593
Serology	123	594
Total of cases	123	595
Medico-legal cases	123	596
Veterinary Department—		
Bengal Veterinary College	123	597
College Hospital	124	598
Glanders and Farcy Act	124	599
Civil Veterinary Department	124	600
Dispensaries	124	601
Breeding of Cattle	124	602
Staff	124	603
Zoological Garden, Calcutta—		
Finance and Statistics	124	604
War—		
War	125	605
Contribution and war work	125	606
Bengali Double Company	125	607
Indian Defence Force	125	608

MAP.

MAP OF BENGAL.

ADMINISTRATION OF BENGAL, 1916-17.

PART I.—GENERAL SUMMARY.

Introductory: the war, the press and political tendencies in Bengal.—The year 1916-17 ended Lord Carmichael's quinquennium of rule; the Right Hon'ble Lawrence John Lumley Dundas, Earl of Ronaldshay, G.C.I.E., assumed charge of the Presidency on the 26th March 1917. The province was on the whole affected in a singularly slight degree by the great struggle in Europe. The enhanced prices of many imports have caused some inconvenience to the middle classes, but the great bulk of the population—simple agriculturists whose wants are few—has pursued the even tenour of its way, absorbed in the economy of its daily life, and aloof and remote from the maëlstrom of war. In certain areas flood and drought brought famine or distress, while the expenditure on original works or on the improvement of administration has been curtailed, but on the whole the harvests were bountiful, prices good and the *raiyat* prosperous. In its political life the province has in some measure responded to the spirit of the times; the Allies as the champions of nationalism have furnished a new rallying cry to the extremists, who claim the speedy realization of an "India for the Indians" and ignore its practical difficulties.

Apart from some Urdu publications, which have shown sympathy with Turkey, the Bengali papers have generally adopted a loyal attitude in respect of the war; but questions of Indian politics continue to monopolize almost entirely the interest of their readers, and their columns are devoted day after day to a somewhat clamorous political propaganda. Hostile criticism of the actions of Government, not seldom marked by disingenuousness and petulance, is, however, no new thing in Bengal, and this lack of perspective which the Indian press displays is hardly surprising in a province in which the realities of war are so little manifest.

It is not easy to determine how far the Bengali press is a popular one and to what extent the extravagant demands it reiterates reflect the sentiments of the educated public as a whole. There can be little doubt that the constant vilification of Government must colour and bias the views and feelings of immature and impressionable students, and there are signs of the cordial good will and steady loyalty of sober moderate Indians being undermined and weakened by the incessant flow of unfair and censorious criticism.

Among the political tendencies of the year, there was noticeable an elaborate but somewhat unsuccessful attempt on the part of the Congress leaders to win the adherence of the more prominent members of the Muhammadan community. The latter are less interested in politics than in their own particular religious, educational and economic problems, and

even the younger and more ambitious men from time to time find themselves divided between their allegiance to political propaganda and the interests of their community.

2. **Moral and material progress.**—The wider diffusion of a sound elementary education is at present checked by financial difficulties, but it is hoped that larger Imperial grants will be available when the war ends. It is estimated that at present less than one-fifth of the boys of school-going age, who should be receiving elementary instruction attend the primary schools. The municipalities unfortunately spend less on primary than on secondary education.

The improvement of village sanitation and water-supply has not yet, owing to financial reasons, been seriously grappled with; the development of village self-government referred to hereafter offers the best hope for the solution of this problem.

Labour has been abundant, and the huge profits which the jute mills gained are reflected in the construction of additional quarters of a good sanitary type for the housing of their coolies. Owing to the want of ships, emigration to the colonies declined.

3. **Land revenue.**—It may be permissible briefly to note, with special reference to the land revenue statistics of the past year, some of the more important duties of the Bengal revenue officer. Over the greater portion of the province the Permanent Settlement prevails, under which in 1793 Lord Cornwallis set a permanent limit to the share of the State in the produce of the land; any large increase from year to year in the Government revenue under this head is therefore impossible. The increase (Rs. 1,84,839) in last year's demand was due in the main to the settlement of newly-formed or waste lands, and to resettlements and the normal increase of demands in Government properties and in estates owned by proprietors whose ancestors, unfortunately for their descendants, refused to accept Lord Cornwallis's liberal terms in 1793. Many estates, *e.g.*, those granted for services rendered to the State or those redeemed by the capitalization of the revenue due, are exempted from the payment of revenue, but from others (97,607 in all) the sum of Rs. 2,77,47,134 was realized, being 14 per cent. of the gross revenue of the Presidency in a year when receipts from opium and customs were abnormally high.

Revenue officers, however, in their relations with the land, are no mere tax-collectors; they directly manage over 2,000* estates, from which Government, as full proprietor, obtained last year an income of Rs. 42,80,160. On behalf of the Court of Wards, which has often been instrumental in rescuing ancient but impoverished estates from debt and insolvency, they hold charge of 57 estates belonging to minors or "disqualified" proprietors with an aggregate rental of Rs. 41,36,143. Many of these estates came into their hands overwhelmed with debt and with their accounts in much confusion; some it is impossible to rehabilitate; others, by prudent and economical management, will gradually attain to solvency.

* Two thousand two hundred and eighty-one, excluding Wards' estates, but including a few privately-owned estates managed by Government on behalf of "recusant" landlords.

In spite of the financial restrictions imposed by the war, the great task of preparing for the whole settled area (63,893 square miles) a complete record-of-rights under the Bengal Tenancy Act was continued by the Survey and Settlement Department; by the end of the year the cadastral (field-to-field) survey had covered 19,486 square miles. In this huge area, each tiny plot has been surveyed and numbered, the name, rights, status and rent of each cultivator recorded, and the long line of tenures, which link up the *raiyat* with the landlord, carefully traced and described. The record is a modern Domesday Book and a monument of local rights.

An area of 5,639 acres was compulsorily acquired by revenue officers at a total cost of Rs. 71,17,478 mainly for Railways, District Boards, Municipalities and the Calcutta Improvement Trust.

Under the Agriculturists' Loans Act loans were granted to the extent of Rs. 8,39,291, chiefly in the district of Bankura, where famine prevailed, and in Burdwan and Noakhali, where floods caused severe distress. Cultivators repaid Rs. 11,29,929 advanced under this Act from time to time, but at the end of the year about Rs. 15¼ lakhs were still outstanding.

4. **Condition of agriculturists.**—The relations between *raiyats* and landlords caused no anxiety. The levy of illegal cesses (*abwabs*) over and above the stipulated rent—abolished by the Permanent Settlement but noticed in 1872-73 by Sir George Campbell, Lieutenant-Governor of Bengal, as having sprung up again with a "rank luxuriance"—is still prevalent throughout the Presidency. The *raiyats* in fact submit without much demur to such exactions; complaints are rare, and Government is unable to penalize an illegality of which judicial evidence is rarely available.

The condition of the cultivators was on the whole good; an excellent winter rice crop was harvested, restoring prosperity even to those districts which had suffered from famine or severe distress. The area under cultivation throughout the province was estimated at over 29 million acres, of which over 21 million acres were under rice. The prices of rice were not high; the market for jute, the great mercantile staple of Bengal, which covers nearly 2 million acres, remained steady.

The Agricultural Department, which for some years has laboured against conservatism and apathy, received indifferent support from the public for a scheme to provide an elementary training in agriculture for the sons of land-holders. There are signs of increasing interest in its work, but closer and more practical relations with the actual cultivator will only become possible with an increased staff. The post of a third Deputy Director has recently been sanctioned. Enquiries showed that the excessive profits, which the middleman is alleged to make in the marketing of jute, have been exaggerated. Where poverty drives the cultivator to sell or mortgage his crop in advance, he obtains ungenerous terms, but where he sells in a free market, only 20 to 25 per cent. of the wholesale price finds its way to the middleman. Co-operative sale presents difficulties, and direct purchase by balers from cultivators is impracticable. The *desideratum* is cheap capital, and the steady development

of the co-operative credit movement will enable the cultivator to meet the middleman on more equal terms. The last Interprovincial Jute Conference recommended certain improvements in the cultivation and production of jute; it foresees no great extension in the acreage under jute, unless prices advance.

A jute seed selected from 500 seeds after careful experiments in the Government farms has since been tested in a variety of soils, with encouraging results, and a certain amount of the "Indrasail" paddy seed, selected after the careful testing for several years of 2,000 varieties of paddy, has been distributed to cultivators. A demand for these two varieties of jute and paddy seed has already sprung up and steps are being taken for their wider distribution.

5. **Co-operative movement.**—There has been a notable expansion of the co-operative credit movement, and the prospects of thus solving the great problem of the Indian peasant's indebtedness grow brighter year by year. The movement began at the beginning of the century by the foundation of some 50 pioneer societies, of which a considerable number directed by more zeal than knowledge have long disappeared.

Provision was made by legislation in 1904 for constituting and controlling such societies, and by 1908 there were nearly 400 societies with assets of Rs. 2,44,000, liabilities of Rs. 2,31,000 and 1,350 members. To-day there are 47 central banks with a working capital of Rs. 58,89,950, 2,857 agricultural and 169 non-agricultural co-operative credit societies with a working capital of Rs. 67,06,570 and Rs. 25,64,868, respectively, and 13 supervisional unions. *i.e., federations of rural societies formed for guaranteeing one another's loans; the central banks have a membership of* 6,668, while the agricultural and non-agricultural societies have respectively 110,961 and 25,582 members.

Co-operation is no novelty in the village community, and where a society is small and its members well known to one another, public opinion imposes a simple code of honour which deprives joint unlimited liability of half its terrors. For some time past the necessity of founding a provincial bank has been recognized, but there are obvious difficulties in financing such a project at present; in the meantime steps are being taken to unite the central banks into a federation so as to provide a better machinery for financing them from the capital which is freely available in Calcutta.

At the present moment, it is considered prudent to restrict rather than encourage the formation of new rural societies, unless adequate control can be secured by their affiliation with a central bank, while the appointment of paid secretaries for these banks is considered desirable for rendering such control more efficient.

The Departments of Agriculture and Co-operation were formerly—in 1907—in charge of one officer; this arrangement is no longer practicable, but the desirability of co-ordination of effort between these departments, which both aim at ameliorating the lot of the cultivator, is fully recognized; during the past year, the one department supplied the means and the other the direction and advice for the extension of potato cultivation and a wider employment of manures. The number of weavers' societies

(a depressed and indigent community) increased from 17 to 34; 9 new societies were formed by fishermen. It is a melancholy fact, illustrating the futility of socialistic uniformity, that some of these societies used the increased prosperity and capital which co-operative sale and the elimination of the middlemen had won for them, to become middlemen themselves and in their turn to exploit the labour of their less fortunate brethren, who had remained outside the co-operative pale.

6. **Fisheries.**—The importance of conserving and developing the fisheries of the Presidency on modern scientific lines has received fuller recognition since the initial enquiry of 1906. The Fisheries Department, which was made separate from the Agricultural Department in 1917, is now concentrating upon the improvement and multiplication of the supply in the inland fisheries of Bengal. Much useful work has been done in supplying the public with carp fry for stocking the tanks or large artificial ponds which form the main source of the water-supply in the interior of Bengal.

The importance of developing the inland fisheries is obvious when it is remembered that nearly four-fifths of the total population of the Presidency consists of people who may eat fish, but to whom meat is taboo.

7. **Commerce and trade.**—In the third year of the war, the paucity of tonnage and exchange difficulties left their mark on the foreign trade of the Presidency. The value of its sea-borne trade shows a remarkable uplift,—11 per cent. above that of the previous year and 6 per cent. over the figures of the last quinquennial average,—but the volume of imports has for the most part declined. This tendency is illustrated in the imports of metal, machinery and mill-work, hardware and cutlery, foreign mineral oils, salt and cotton manufactures. The United Kingdom's share in the import trade (merchandise) was 63·8 per cent. against 65·2 per cent. in the previous year; Japan obtained a firmer hold of the piece-goods trade and supplied almost 70 per cent. of the glass and glassware imports,—an advance of 57 per cent. on her trade of 1915-16.

The export trade increased in value, mainly by reason of the unparalleled prosperity of the jute trade, which, however, early in 1917 was so severely affected by the cancellation of Government orders and the difficulties already described that an agreement to work short-time at the mills was considered necessary.

Tea had some reverses; the crop was smaller than in the previous year, and though prices reached a high level in Great Britain transport difficulties, restrictions on export and high freights caused some depression in the trade.

The export of hides to the United Kingdom attained dimensions unknown before, although the total volume of the hide and skins trade decreased; the metal and ore trade, particularly the export of manganese ore, flourished; the area under indigo was more than doubled, and the output of coal in Bengal, Bihar and Orissa was nearly 16 million tons.

The United Kingdom took 32 per cent. of the exports, as against 36·1 per cent. in 1915-16; the purchases of the United States increased from 19·8 per cent. to 25½ per cent.

The frontier trade with Sikkim, Nepal, Tibet and Bhutan continued to expand; imports (chiefly live animals, fruits, vegetables, nuts, *ghee*, raw wool, grain, pulse and spices) amounted to Rs. 91 lakhs and the exports (chiefly cotton goods) to Rs. 36 lakhs.

8. **Industrial development.**—The restriction of imports from Europe, which has enabled the enterprising Japanese to increase their export trade with Bengal a hundredfold, has led to no spontaneous development of new or minor industries; some expansion of mulberry cultivation and silk-weaving and some increased prosperity in petty sugar industries make *up the meagre tale.* Other factors, however, have been at work which may have far-reaching consequences in the industrial development of Bengal. Cut off by the war from some sources of supply and deprived of a market for some of her raw materials, the Presidency has been driven not only to manufacture for its own needs, but to assist the over-worked industries of the United Kingdom. Her great hide industry is a case in point.

For many years India has exported its hides and its vegetable and tanning materials in the same ships, and not less than 60 per cent. of the total export went to the Central European powers. The Allies want leather, but England cannot cope with the quantity of raw hides which India exports. Bengal has been driven to tan her own hides, and already large tanneries are springing up in Calcutta, new processes of chemical tannage are being examined, and new uses being found locally for Bengal leather. The manufacture of munitions of all kinds from shells to bolts and nuts for the armies in Mesopotamia and East Africa is a work of great magnitude, and it has called into being new and important enterprizes for producing, with modern machinery, articles which were formerly purchased abroad. What has been already achieved is remarkable; its potentialities can hardly be over-estimated.

9. **Finance.**—The revenues of the province increased; the five crores increase in the Imperial receipts (Rs. 13,97,31,718) was due mainly to the abnormal yield of the customs dues and the handsome prices realized at the opium sales. The provincial receipts (Rs. 6,67,41,000) show an increase of Rs. 32,81,000, while expenditure declined by more than Rs. 25 lakhs. Income-tax (Rs. 8½ lakhs), thanks to the enhanced rates of taxation, yielded more than double the revenue of the previous year. Its incidence is extremely restricted; only 58,338 persons out of a population of 45½ millions were taxed, one person in 1,207 outside Calcutta paying an average tax of Rs. 69, and in Calcutta one person in 52 paying on an average Rs. 609 each.

10. **Police.**—In spite of some slight increase the police force of the Presidency is still inadequate, and the proportion of police to the population remains much lower than in other provinces.

The subdivision of large, unwieldy investigating centres and the provision of suitable accommodation for the district police are urgent needs. A building programme costing Rs. 90 lakhs has been approved, but only Rs. 9½ lakhs could be granted for this project in the past year. Recruitment was satisfactory and the health of the force improved—

due in part to the distribution of iron-cots and mosquito nets in malarious districts.

Several constables and officers were prosecuted by private persons on charges of torture, bribery and extortion; only one in every five cases actually brought to trial ended in conviction. In the opinion of the Inspector-General of Police, the general *morale* of the force is steadily improving.

Crime is still more prevalent than in pre-war days, but dacoities which swept like a plague across certain districts in 1915, have notably decreased. The energy and skill of the Criminal Investigation Department have assisted the district police in breaking up and mastering several dangerous gangs. The stoppage of trade with Germany and Austria has reduced the illicit supply of cocaine, and led to a remarkable fall in the number of excise cases.

The Calcutta police force has been strengthened by the formation of a third company of civil armed police, and the Commissioner of Police relieved of much detailed administrative work by the creation of two semi-independent city areas under Deputy Commissioners, these again being each divided into two divisions in charge of Assistant Commissioners, who supervise all pure executive work.

11. **Revolutionary crime.**—Revolutionary or anarchical crime was checked and to some extent held at bay in the latter half of the past year, but the tale of deliberate ruthless murders planned and executed by the misguided but implacable enemies of the present *régime* is still a long and melancholy one. In all, there were 24 crimes—murder or dacoity—attributed to the anarchists, as against 36 in the previous year.

In January 1916, a Bengali Police Sub-Inspector, attached to the Special Branch in Calcutta, which deals with the anarchical movement, was murdered in cold blood in one of the main thoroughfares of Calcutta; in June of that year, Deputy Superintendent B. K. Chatarji, who by his intimate knowledge of the movement and his faithful devotion to duty was marked out as the victim of those he pursued, was shot dead by five Bengali youths of the middle classes as he was cycling down an important street in Calcutta. An Orderly Head-Constable, who accompanied him shared his fate. Two detectives were murdered in Dacca while on duty. Two persons suspected of aiding the police were assassinated and the Head Master of a school in a country town was murdered for the same reason in circumstances of the most atrocious cruelty. One of his pupils was ultimately convicted for this crime; his associates escaped. In the Tippera district, the villagers offered a brave and stubborn resistance in a political dacoity, planned to replenish the funds of the revolutionaries. They had no weapons that could cope with the revolvers carried by the dacoits and five of them were killed and five wounded; one of the dacoits subsequently identified as a man who had absconded from the place of domicile assigned to him under the Defence of India Act, died from the injuries inflicted on him by the enraged villagers.

Several convictions were obtained on charges of conspiracy and other crimes, but in the vast majority of cases there are circumstances peculiar to Bengal, which preclude any hope of conviction by the regular courts,

though the police may possess convincing evidence consisting of confessions often corroborated in the most unexpected and dramatic fashion by other confessions or incidents—where collusion or the exercise of undue influence by the subordinate police was unthinkable. The confession is withdrawn in the dock; the public, even those who dislike and stigmatize on the platform or in the press the evil which as private persons they do not venture to condemn, would slip away from the scene of a crime to which they might be required to depose, and the spies or detectives before whom phases of the revolutionary movement lie exposed as an open book, are too valuable to be exposed by the publicity of a trial to the cowardly revolver of the anarchist. In these circumstances, Government has been compelled to use freely the instrument it possesses in the Defence of India Act—a war or emergency measure passed deliberately with the purpose of dealing with anarchical conspirators and other enemies of the King. The cases of persons against whom action is taken are submitted in every instance to a judge, who advises Government on the probative value of the evidence laid before him. The persons interned or restrained are treated with the greatest consideration; and at the time of writing Government has arranged for an independent tribunal, consisting of a judge from the English Bench and other high judicial and executive officers, to sit in judgment on the materials which the Intelligence Bureau possesses, to decide whether the organized and deep-seated conspiracy to subvert British rule does in fact exist, or, as some publicists maintain, is the mere chimera of nervous fancy, and if it exists, generally to advise Government on the measures to be adopted for dealing with the position.

12. **Justice:** (*a*) **Criminal.**—The statistics of crime and litigation present no important variations from those of the preceding year, and this paragraph aims merely at describing the volume of the work and the agencies which deal with it. The courts of original jurisdiction are 349 stipendiary magistrates, comprising in Calcutta four police and two municipal magistrates, and in the mufassal 26 district magistrates, who tried few cases themselves (504 out of 136,568), several additional district magistrates and numerous subordinate stipendiary magistrates. There are besides in the mufassal 702 honorary magistrates from whom 102 benches were constituted and 77 honorary magistrates in Calcutta. In the mufassal, they disposed of 21·4 per cent. of the cases brought to trial, and in Calcutta dealt with some 50 per cent. of the police cases.

Out of 330,071 criminal offences reported throughout the province 16·9 per cent. were found to be false or summarily dismissed. The large number of proceedings (2,401 involving 10,168 persons) which were instituted to prevent breaches of the peace, ordinarily due to agrarian disputes, in addition to 1,287 proceedings which expressly decided questions of possession of land, suggests the contrast between the disturbed slumber of the Indian countryside, and the unruffled placidity of rural England. In Bengal club-law no longer prevails, but the gambles of litigation and the resulting insecurity of titles give the peaceful *raiyat* his chief zest in life. The mufassal magistrates examined 368,060 witnesses, while 177,800 were discharged without examination. The Court of Sessions (31 judges) deals with capital and other serious offences; 64 per

cent. of persons tried in 1,469 cases were convicted : 22 persons were sentenced to death and 153 to transportation. The jury-system extends over 10 out of 26 districts ; out of 1,393 persons tried by jury, the Sessions Judge approved of the jury's verdict in respect of 1,229 persons ; 67 cases were referred to the High Court, who disposed of 39 references, setting aside the jury's verdict in 25. The expediency of extending the system, which in the opinion of the late Hon'ble Member in the Judicial Department (Nawab Sir Syed Shams-ul-Huda) has proved "neither a conspicuous failure nor a conspicuous success," is now under consideration.

The total charges of Criminal Justice amounted to Rs. 26,18,769 and the receipts to Rs. 15,84,460.

(*b*) **Civil Justice.**—The administration of Civil Justice is the province of the High Court with 14 judges, the Small Cause Court with 5 judges and a chief judge, and the District Courts with 21 district judges, and 10 additional judges at the top assisted by 43 subordinate judges and 235 munsiffs.

The mufassal courts decided 704,338 civil suits out of a total of 896,571. In 71 per cent. of cases the plaintiffs succeeded ; about one-half of the total number of suits were in respect of small sums not exceeding Rs. 50.

The total receipts under the head of "Civil Justice" amounted to Rs. 1,50,48,365 and the charges to Rs. 58,10,457.

13. **Local Self-Government:** (*a*) **Municipalities, Mufassal.**—It was pointed out in 1871* that "the ancient indigenous village of India, that rural self-governing commune, which had existed through wars and revolutions and the changes of many dynasties" owed its cohesion to pressure from without and the necessity of self-preservation, and that under the regular and settled rule of the British Government, it was bound, "unless recognized and cherished, to go to pieces," and it was urged that Government should set itself to "give to towns and restore to villages that measure of self-government and local freedom, to which both their old traditions and their modern education alike point."

By 1850, when an attempt was made to use the village organization as consultative committees to provide for the village watch, the forces which Sir George Campbell described in 1871 had done their work. Communal institutions had almost disappeared, and the local self-government which the legislation of 1864—1876 gave to the towns of Bengal, was a more advanced and, as it proved, a less efficient form of autonomy. It was municipal government on western lines, which did not ignore the elective principle, although, in practice, the magistrate, as *ex officio* chairman, tended to monopolize power. Excluding Calcutta, its suburbs and Howrah, there were in 1872, in addition to 69 simple watch and ward committees, no less then 120 fully-fledged municipalities with an income of over Rs. 11¼ lakhs. In 1882 came Lord Ripon's famous resolution on self-government, and Act III of 1884, modified and amended as time went on, still regulates the constitution and working of the

* Sir George Campbell's Introduction to the Administration Report of 1871.

municipalities of mufassal Bengal. In 1885 there were 128 municipalities with an income of Rs. 26½ lakhs; in 1904-05, 161 municipalities disposed of an income of Rs. 57¾ lakhs; in 1916-17, though great changes of territory have left Bengal with only 113 municipalities, their income amounts to almost Rs. 57 lakhs. The system of local self-government in India—both rural and municipal—has recently been reviewed by the Royal Commission upon Decentralization, and the Bengal Government is now preparing to consolidate and modernize its municipal law in a Bill in which the recommendations of the Commission will find a place. In a recent resolution upon its self-government policy, the Government of India refers to the growth of a feeling of good citizenship and the quickening of a sense of responsibility, particularly in the towns, while recognizing that the degree of success so far achieved varies from province to province.

This Presidency offers examples both of good and of bad municipal administration. Some municipalities conduct their affairs in an efficient and business-like way, giving in their public services extremely good value for the moderate taxation they levy; others are disfigured by party factions, hampered by a fear of taxation and deterred through timidity or partiality from any vigorous exercise of power. The weaker municipalities have been content to levy and collect taxes and provide some of the elementary services for which a municipality primarily exists. They have rarely taken advantage of those provisions of the law, which, in the interest of public health and sanitation, place irksome obligations on individuals. The exiguity of their resources is constantly urged as the bar to progress in rural municipalities, but the incidence of municipal taxation is everywhere low.* In the early days of self-government in Bengal, much was expected from the educative value of self-taxation, but the history of some of the backward municipalities of Western Bengal shows that this influence has had little effect.

It is, however, gratifying to note that the measures taken in the past year to increase the financial responsibilities of municipal commissioners, to extend the elective system and generally to relax the slight official control, which can still be exercised, have on the whole been successful. In the past year, 11 of the few remaining municipalities, in which Government appoints the chairman, have been empowered to fill that post by election; three of these bodies preferred that Government should continue to appoint an official chairman, while one municipality, of which the commissioners are appointed by Government instead of being elected by the ratepayers, protested against the introduction of the elective principle as being unsuited to local conditions. There was some improvement in the collection of rates and taxes, a branch of work in which few of the mufassal municipalities have excelled; the aggregate income amounted to nearly Rs. 57 lakhs, and the expenditure to Rs. 57¼ lakhs. Original works of drainage and water-supply have been curtailed owing to difficulty in obtaining materials and to financial stringency. Of the aggregate expenditure on education (nearly Rs. 2½ lakhs) less than half was devoted to primary education.

* On an average Rs. 2-5-4 per head of population, and in one municipality only 4 annas 8 pies.

The loan liabilities of the mufassal municipalities are very light, viz., Rs. 43½ lakhs, of which Rs. 23¼ lakhs represents Howrah's indebtedness. The loans have in almost every case been advanced by Government.

(*b*) **Calcutta Corporation.**—Owing to the difficulty of floating a loan, rigid economy was necessary and original works were almost entirely stopped. Receipts amounted to over Rs. 115½ lakhs and payments to roughly Rs. 112¼ lakhs; the year closed with a balance of nearly Rs. 43 lakhs. The loan liability of the Corporation at the close of the year was Rs. 490 lakhs, for the service of which over Rs. 30 lakhs per annum are required. Perhaps the most important task now confronting the Corporation is the extension of its underground drainage system, on which the development of the suburbs by the Improvement Trust must wait.

(*c*) **District and Local Boards and Unions.**—District Magistrates have hitherto been appointed as chairmen of all District Boards (which correspond roughly with the county councils of England), and by virtue of their authority and local knowledge, naturally exercise great influence over the deliberations of the Boards. An important constitutional change was made towards the end of the year by the appointment by Government of an Indian non-official as chairman of one District Board, and at the time of writing the experiment is being extended by the election of non-official chairmen in 5 of the 26 districts of the Presidency. The District Boards have an aggregate income of nearly Rs. 107 lakhs, and in thus freeing several of these bodies from official control, the Governor in Council has given an earnest of his desire to open up a wider sphere of public work to the people of this province.

A few statistics will demonstrate the important duties discharged by the Boards. In the year under review, they maintained 2,824 primary schools and gave aid to 31,196. Of the total number, 7,199 were girls' schools. The aggregate expenditure on education was over Rs. 23,31,000, of which Rs. 18 lakhs (over 75 per cent.) was devoted to primary or elementary schools. The Boards maintained or aided 440 dispensaries at a cost of Rs. 7,35,137; in certain districts medical relief is afforded to villagers residing in riverain tracts by means of floating dispensaries. The expenditure of Rs. 59½ lakhs on civil works includes the amount spent on water-supply and drainage, but nearly four-fifths of the total is devoted to communications (repairs and original works). The mileage of metalled, unmetalled and village roads in charge of the Boards at the end of the year was 2,034, 13,544 and 16,408, respectively. The Local Boards, which over smaller areas perform certain functions delegated to them by the District Boards, show little vitality, although their recently-acquired privilege of voting for the Provincial Legislative Council has rendered membership more popular. The allotments granted to them each year by the District Boards are meagre and their staff frequently incompetent.

On the other hand, the Union Committees—smaller units which deal with groups of villages—have recently shown signs of a vigorous life. Their number increased in the year from 90 to 156. The majority are

constituted on an elective basis, and no less than 67 have voluntarily taken advantage of the permissive section of the law to impose taxation within the areas they administer for the improvement of village roads, water-supply and sanitation. They disposed in all of over Rs. 1½ lakhs, of which a lakh was contributed by the District Boards. "In one committee the nominated members object to sitting with elected members on the ground that the latter may be persons who, according to the social customs of the country, should stand before them," while in some other villages "the few enlightened men have to contend against a dead weight of ignorance, apathy and selfishness." But these are exceptions, and elsewhere these committees show that practical good sense and closeness to the life of the people which gave the ancient village communal institutions their vital force and their authority. The Governor in Council believes that the wider scheme of village self-government which is now contemplated will afford in time a sure and stable foundation for an improved system of representative government.

14. **Calcutta Improvement Trust.**—The work of the Trust received a serious check owing to a High Court ruling (reversed after protracted litigation by a Full Bench), in which it was held that the Act did not authorize the acquisition of surplus lands for purposes of recoupment.

The beneficent and far-reaching consequences of the Trust's operations are already apparent, and it is a matter for satisfaction that the Indian members of the Trust, who were at first disposed to regard themselves in the light of a brake on the over-zealous and unsympathetic efficiency of its executive, have become the most ardent town-planners. Building sites are at a premium in Calcutta, and its development demands the effacement and re-planning of those insanitary congested areas for which the poverty of Calcutta's early municipal administration and some lack of imagination in more modern times are mainly responsible. The first scheme of the Trust is complete; a slum has been swept away and a splendid specimen of the new Calcutta set down in its place. The scheme paid for itself. Two great thoroughfares, each over 100 feet in width, are under construction, and a large low-lying suburban area, which had grown up without a design, has been cleared, levelled and planned. The Board spent nearly Rs. 45 lakhs, and at the close of the year had a surplus of more than Rs. 100 lakhs.

15. **Education.**—No outstanding event marks the educational year. The scheme for establishing a model residential University at Dacca, which was approved by the Secretary of State in 1913, has been postponed, pending the report of the Royal Commission on University education in Bengal. The foundation at Rangpur of a new private college, which bears Lord Carmichael's name, may also be mentioned.

Progress and development have been generally impeded by financial stringency, but much has been done in the elaboration of carefully considered schemes for the future expansion of education in Bengal. Committees have sat and important lines of policy have been laid down. What is needed is money; there is possibly no other administrative problem in Bengal, to which money is so indubitably the key.

In collegiate education, the most pressing need is perhaps the provision of well-designed and well-supervised hostels. The increasing demand for University education every year sends thousands of students to Calcutta who clamour for admission into colleges, which are already overcrowded. Oxford and Cambridge have each some 5,000 students to house and control; out of 15,000 University students in Calcutta, there are nearly 5,000 over whose residence the University exercises no kind of control, and of these nearly 2,000 reside in overcrowded and insanitary lodgings which drive their occupants out to seek recreation and excitement in the temptations of a great city or the troubled politics of Bengal. The Government of India since 1911 have allotted no less than Rs. 26 lakhs for providing proper hostels in Calcutta, but some limit must be set to such expenditure by the State and it is hoped that the Royal Commission may evolve some alternative scheme for coping with this growing evil.

Elementary education presents a problem of no less importance. In nearly 32,000 primary schools, instructing roughly 1,125,000 boys, there are 29,000 totally untrained teachers, whom it would take 40 years to instruct in the existing training institutions. In about 2,500 secondary schools instructing about 375,000 pupils, only 3,000 out of 17,000 teachers have studied in any degree the art of pædagogics. Elaborate schemes have been framed to remedy this serious defect in the educational system when normal financial conditions return.

In view of this fundamental weakness, it is hardly surprising that the Director of Public Instruction laconically remarks: "the general condition of secondary education is bad." The tendency on the part of parents to appraise the work of secondary schools by their examination results, to which he mainly attributes their defects, is not confined to Bengal or India, but its influence in Bengal, where the *bhadralok* (middle classes) regard posts in Government service and employment in certain professions as the only careers open to their sons, is peculiarly potent and most baneful in its results. While the present system turns out a satisfactory percentage of matriculates, the public show little disposition to criticize the methods of work or to examine the broader aspects of education. At present the teachers are ill-paid and discontented, the buildings often inadequate and unsuitable, the standards of education and discipline low.

The policy of Government in regard to Muhammadan education has recently been declared in an important Resolution, which adopted several of the recommendations, of a representative Committee appointed in 1914. The Census of 1911 showed that only three-tenths of the total number of literate persons in the Presidency belong to the Muhammadan community, which, however, comprises more than half of the population of Bengal. Not more than 4 per cent. of that community are literate. Of the boys reading in primary schools only 42 per cent. are Muhammadans, while they represent only 16·8 per cent. and 7·8 per cent. of the students in high schools and colleges. The Muhammadans, therefore, are not yet on the same plane educationally as the Hindus, whereas the peaceful development of the Presidency—both politically and otherwise—

depends on the uniform educational progress of its two great communities Government realizes that the Islamic dislike of a purely secular education cannot be ignored and that the solution perhaps lies in grafting a modern syllabus on to the semi-religious education of the *maktab* and *madrassa*. It has been decided to give the elementary *maktabs* thus developed and broadened, the status of primary schools, entitled to receive grants from primary education funds. Government has also undertaken to reserve for Muhammadans a fixed proportion of places in its high schools and colleges. The problem, however, of bringing the system of Islamic education into line with the requirements of modern life in such a way as to secure the confidence and support of devout Moslems, is no easy one.

The further expansion of female education is largely a question of funds. The number of institutions of all classes for Indian girls and women is nearly 9,000 with 270,000 pupils, of whom rather more than half are Hindus. The paramount need is a steady supply of trained teachers, and schemes for establishing more training schools and classes are ready. The pay and prospects of teachers must be improved, the utterly inadequate inspecting agency strengthened and school accommodation made adequate and suitable. The outlook is promising and errors which have been made in the case of boys' schools can be avoided; what is most essential is that parents must be made to realize their obligations, and not encouraged to expect that the State should shoulder the whole burden of educating the girls of Bengal.

PART II.

CHAPTER I—PHYSICAL AND POLITICAL GEOGRAPHY.

For—

Physical Features of the Country, Area, Climate and Chief Staples.
Historical Summary.
Form of Administration.
Character of Land Tenures; System of Surveys and Settlements.
Civil Divisions of British Territory.
Details of the Last Census, Tribes and Languages.

See—

General Administration Report for 1911-12, Part II, Pages 1—134.

Changes in the Administration.

Police.

1. In order to afford relief to the Deputy Inspector-General of Police in charge of the Dacca Range, the districts of Bakarganj, Faridpur, Noakhali, and Chittagong were transferred from his charge and formed into a separate range with head-quarters at Barisal. The rearrangement thus effected rendered it possible for the Deputy Inspector-General, Crime and Railways, to be relieved of his work in connection with the River and Railway Police, the control of which was transferred, respectively to the Deputy Inspector-General in charge of the new range at Barisal and to the Deputy Inspectors-General in charge of the several ranges.

Proposed Department of Public Prosecutions.

2. In August 1916, the Government of India appointed a Committee to consider certain questions relating to the legal business of the Governments of India and Bengal. The Committee made suggestions regarding the allotment of work among the Law Officers of Government and the appointment of a Director of Public Prosecutions. In accordance with the recommendations of the Committee, the pay of the Advocate-General, Bengal, was reduced from Rs. 4,000 to Rs. 3,000 a month.

In February 1916, Mr. P. L. Roy, Barrister-at-Law, was appointed Additional Legal Remembrancer on Rs. 2,500 per mensem for one year to work out, in consultation with the Legal Remembrancer, a detailed scheme for the organization of a Department of Public Prosecutions in Bengal. The term of his appointment was extended up to the 31st January 1918, pending a decision on the recommendations of the Committee appointed by the Government of India.

Relations with Tributary States and Frontier Affairs.

COOCH BEHAR.

[Annual Administration Report of the Cooch Behar State for the year 1916-17.]

(Area 1,307 square miles; chief produce—rice, jute and tobacco; population 592,952; military force 201 men and four guns; annual revenue Rs. 31,54,323; Ruling Chief—Maharaja Jitendra Narayan Bhup Bahadur, family Tibetan or Dravidian origin; residence, Cooch Behar.)

Council.

3. Mr. J. A. Miligan, M.A., I.C.S., was appointed Vice-President, State Council, with effect from 1st July 1916, in succession to Mr. E. W. Collin, who retired from the service of the State. Mr. N. N. Sen, Dewan of the State,

acted as Vice-President, State Council, till he was relieved by Mr. Miligan on the 1st July 1917. He continues to be a member of the State Council. On the executive side 33 meetings were held against 29 of the previous year, at 17 of which the Maharaja presided. On the Judicial Side the Council held 36 meetings against 31 of the previous year. No meeting of the Legislative Council was held during the year.

State Railway. 4. The gross earnings of the Cooch Behar State Railways amounted to Rs. 2,86,152, while the working expenses were Rs. 1,30,895. The net earnings were 6·82 on the capital outlay against 6·19 of the previous year.

Finance. 5. The total revenue of the State amounted to Rs. 31,54,323 against Rs. 30,68,415 in the previous year, while the total expenditure amounted to Rs. 30,78,494 against Rs. 28,80,790. The closing balance inclusive of Government money and deposits was Rs. 12,92,661.

Crops and condition of the people. 6. Although the heavy rainfall of April and May and the early flood of the year did some damage to the jute crop, the outturn was better than that of the previous year, and the price was again Rs. 8 to 9 per maund.

Criminal Justice. 7. The total number of cases reported during the year was 2,432 against 2,498 in the preceding year, showing a decrease of 66. The percentage of conviction to total number of persons tried was 61·08 against 67·07 of the previous year. The number of persons admitted into the jail was 245 as compared with 304 in the previous year.

Education. 8. The number of Subdivisional Higher English Schools was 4 against 3 in the previous year. The total number of pupils attending them rose from 866 to 1,068. The total number of recognized primary schools was 318 being the same number of the previous year. The number of Muhammadan boys attending various schools was over 5,000. The Victoria College continued to make satisfactory progress.

Public health. 9. The general health of the State was on the whole good. An epidemic of small-pox broke out in the Matabhanga subdivision, but special measures were adopted in time to check it.

HILL TIPPERA.

[Administration Report of Hill Tippera for the year 1916-17.]

(Area 4,086 square miles; population 2,29,613, revenue from the State Rs. 14,39,778; revenue from zamindari in British territory 8,75,437; chief products rice and cotton, military strength 240 including officers; Present Raja—Birendra Kishore Deb Burman Manikya, aged 34 years: family Indo-Chinese; caste Kshatriya; has male heir; residence, Agartala.)

Measures for improvement of the State. 10. Two important measures were initiated during the year under report with the object of developing the resources of the State (1) the extensive waste lands of the State were thrown open for tea cultivation and (2) an exploring license (for minerals) was issued to the Burma Oil Company, Limited.

Political Agent. 11. Mr. J. Bartley, I.C.S., continued as Political Agent.

Revenue and Finance. 12. The total revenue of the State amounted to Rs. 10,39,778, against Rs. 10,85,894 in the previous year, and Rs. 10,60,840 the average of the preceding five years. The gross receipts of the State and the attached zamindaries amounted to Rs. 19,15,215, and with law charges recovered, refunds and deposits, the total amount was Rs. 26,36,337. The total expenditure amounted to Rs. 19,57,077. As regards outstanding liabilities, rupees one lakh was due at the close of the year to the Bank of Bengal, as compared with Rs. 1,75,000, at the close of the previous year.

Protection. 13. The total number of offences reported to the police was, 1,028 against 994 in the preceding year—the number of persons arrested was 704, of whom 632 were sent up for trial; of these 332 were convicted and 97 persons were awaiting trial at the close of the year. The percentage of stolen property recovered was 36·6 against 31·2 in the preceding year.

Weather and Crops. 14. The rainfall during the year was 86·66 inches against 119·69 inches of the preceding year, and 107 inches the average of the preceding five years. Floods occurred in parts of the territory resulting in considerable damage to crops and some loss of cattle.

Public health. 15. The year was generally unhealthy. There was an epidemic of cholera and a considerable amount of malarial fever.

Condition of the People.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

The Agricultural classes.

16. The outturn of crops was generally satisfactory and the condition of the cultivating classes improved. A bumper crop of winter rice restored normal conditions in Bankura which suffered acutely from failure of crops in the previous year. Except in small areas which suffered from floods the harvests were excellent in the districts of Tippera, Mymensingh and Noakhali which had experienced floods in the previous year. In the districts of Burdwan, Birbhum and Midnapore and in the Chittagong Hill Tracts some damage was caused by floods and relief measures on a small scale were found necessary. In Bakarganj, suspension of rent and cesses to the extent of about Rs. 21,000 was sanctioned for two Government estates for the same reason.

Wages and Salaries.

17. The condition of the labouring classes was good. The demand for labour, both skilled and unskilled, was steady and high wages prevailed. The general rise in the prices of imported articles in consequence of the war affected the middle class with fixed incomes.

CHAPTER II.—ADMINISTRATION OF THE LAND.

Realization of the Revenue.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

Total collections.

18. The total number of estates paying land revenue was 97,607 against 97,472 in the previous year. Of these 91,895 were permanently-settled estates, 3,429 temporarily-settled estates and 2,283 estates held direct by Government. The total current demand of the year amounted to Rs. 2,77,87,002, showing an increase of Rs. 1,84,839, as compared with the previous year. The increase was due mostly to new settlements, re-settlements and progressive increase of demands in temporarily-settled and Government estates. The total realizable demand of the year, including the arrear, Rs. 18,02,799, was Rs. 2,95,89,801, out of which the collections amounted to Rs. 2,77,47,134, being 93·77 per cent. of the total and 99·85 per cent. of the current demand as against 93·82 and 100·97 per cent., respectively, in the previous year. The total remissions granted amounted to Rs. 72,710 against Rs. 73,727 in the previous year. The bulk of the remissions was allowed, as usual, in estates held direct by Government.

Collections in (a) Permanently-settled estates.

19. The total demand of the permanently-settled estates amounted to Rs. 2,17,74,732 (Rs. 2,15,78,338 current and Rs. 1,96,394 arrear), of which Rs. 2,15,52,983 or 98·98 per cent. was collected. The current collections reached 98 per cent. or more in all districts except Bakarganj (96·92). The deficiency in that district was chiefly due, as in previous years, to short payments made in respect of the estate of the late Raja Sir Sourindra Mohan Tagore, under the management of the Court of Wards, on account of its bad financial condition.

(b) Temporarily-settled estates.

20. The temporarily-settled estates are divided into three sub-classes: (1) private estates settled with proprietors, (2) private estates leased to farmers, and (3) Government estates leased to farmers. The total collections from all these three classes amounted to Rs. 17,22,672, representing 97·36 per cent. of the current demand, Rs. 17,69,328 against 100·48 per cent. in the previous year. A balance of Rs. 4,05,604 remained unrealized at the close of the year. The current collections fell short of the prescribed standard in six districts. Of these, Bakarganj showed a very large outstanding balance owing to large sums, though realized, being not credited pending disposal of a civil suit and for other causes.

(c) Estates held direct by Government.

21. The estates held direct by Government comprise two sub-classes: (1) estates belonging to private proprietors, but managed by Government and (2) those owned by Government as proprietor. The total demand of these estates amounted to Rs. 56,85,582 (current Rs. 44,39,336 and arrear Rs. 12,46,246) of which Rs. 44,71,479 (current Rs. 36,59,580 and arrear Rs. 8,11,899) or 78·64 per cent. was collected, Rs. 71,203 remitted and Rs. 11,42,900 left unrealized at the close of the year. A sum of Rs. 1,07,055 was collected during the year, but could not be credited in the accounts. The current collections showed better results, being 82·43 per cent. of the current demand against 80·01 per cent. in the previous year. The falling off in the percentage of arrear collections from 71·95 per cent. in the previous year to 65·14 in the year under report, is mainly due to the fact that the tenants of the Contai khas mahals in Midnapore had to pay during the year a sum of about two lakhs of rupees in repayment of the agricultural loans granted to them after the disastrous floods of 1913 and this made it difficult for them to pay their rent in full.

Miscellaneous land revenue.

22. The total collections amounted to Rs. 32,13,056 against Rs. 21,44,234 in the preceding year. This large increase was chiefly due to the heavy receipts under the head "Recovery of survey and settlement

charges," aggregating Rs. 29,13,381 against Rs. 17,17,175 in 1915-16. Out of the total collections of Rs. 1,68,371 under "Other receipts," a sum of Rs. 57,325 was realized from the Burdwan Estate on account of *Pulbandi* contribution.

Changes in the land revenue demand of temporarily-settled estates and estates under direct management.

23. There was a net increase of 7,490·58 acres in the area of land settled and of Rs. 1,87,993 in revenue.

Redemption of land revenue.

24. The total number of petty estates and holdings, the land revenue of which was redeemed during the year, was 241. These were mostly permanently-settled holdings in the Government estates of Calcutta and its suburbs. The total amount of land revenue redeemed was Rs. 507 and the price realised aggregated Rs. 14,519 against Rs. 441 and Rs. 12,164, respectively, in the previous year. There was no redemption under the old Partition Act of 1876.

Remittance of land revenue and rent by money-orders.

25. The total number of special money-orders issued for the remittance of land revenue and cesses and the aggregate amount covered by these orders decreased from 246,782 and Rs. 19,79,301 in 1915-16 to 225,411 and Rs. 19,53,563, respectively, during the year under report. The fall in the number of orders was shared by almost all the districts. The average value of an order increased from Rs. 8·02 in 1915-16 to 8·66 during the year. The system of payment of rent by money-order continued in force throughout the Presidency, except in the districts of Darjeeling and the Chittagong Hill Tracts. The number of rent money-orders issued rose from 62,697 to 65,057, but the amount covered by them fell from Rs. 10,73,615 to Rs. 10,35,757. The number of money-orders refused increased from 10,615 to 12,428 raising the percentage of refusals from 16·9 to 19·1.

Coercive measures—(a) Sale laws.

26. The number of estates or shares of estates which defaulted in the payment of land revenue and became liable to sale was 11,030 or 1,468 less than that of the previous year. Of these only 981 estates or 8·8 per cent. of the defaulting estates were actually sold against 8·7 per cent. in the previous year. The price realized by sale was 4·9 times the Government revenue as compared with 2·9 in 1915-16. Eighty-seven tenures and holdings under the direct management of Government were sold under the provisions of Act XI of 1859. Of these, 38 were purchased on behalf of Government for Re. 1 each. One hundred appeals were filed before the Commissioners against sales. In 14 cases sales were annulled by the Commissioner under section 2 of Bengal Act VII of 1868 and in 19 cases by the Board under section 26 of Act XI of 1859, as amended by the Decentralization Act, 1914.

(b) Certificate procedure.

27. During the year the number of certificate cases instituted, other than those for cesses which have been dealt with in Chapter V, rose from 45,825 to 56,964. The percentage of certificate cases disposed of to the total number for disposal rose from 57·6 to 76·9 with the result that the number of cases pending at the close of the year decreased from 19,541 (revised figures) to 17,627. In the majority of cases payments were made on the issue of notices or on attachment of property and it was necessary to resort to actual sale in only 2,959 cases or 5 per cent. of the total number of cases (58,878) disposed of during the year.

Realization of Government and other demands by imprisonment Processes.

28. Of the 33 persons committed to civil jails during the year in the enforcement of certificates, 16 were imprisoned for non-payment of Government demands and the remainder for withholding sums due to District Boards and Court of Wards, etc.

29. The total number of processes served rose to 952,195 from 889,359 in the preceding year. The process fees realised amounted to Rs. 3,77,234 against Rs. 3,48,629 in the preceding year and the total cost of service, including the pay of the supervising establishment debitable to land revenue, was Rs. 2,21,205 against Rs. 2,36,022 in the previous year. In the districts of Jessore, Khulna, Rajshahi and Bogra the cost of the process-serving establishment exceeded the receipts from fees. The system of fines and rewards for bad and good work is reported to have worked well. The system of serving

processes by Dafadars through President Panchayats was in force in the districts of Hooghly, Khulna, Dacca and Tippera, in the Sadar and Kalna subdivisions of the district of Burdwan, in the Sadar subdivision of the district of Birbhum, in the Barrackpore and Baraset subdivisions and part of the Sadar subdivision in the 24-Parganas, in the Ranaghat, Chuadanga and Meherpur subdivisions of Nadia, in the Lalbagh subdivision of Murshidabad, and in the Magura subdivision of Jessore. The system was extended during the year to the other subdivisions of Jessore, and the Rampur Hat subdivision of Birbhum, and its introduction in the Goalundo subdivision of the Faridpur district and in the Sadar subdivision of the Rangpur district has recently been sanctioned. The system appears to have worked satisfactorily in all these places except in the Sadar subdivision of Burdwan.

OTHER REVENUE WORK.

Land Registration.

30. The total number of proprietary interests entered in the land registration registers of the Presidency was 951,581 at the beginning of the year as against 957,495 at its close. The number of applications for registration of succession to proprietary interests in land by purchase, inheritance, gift, or otherwise was 37,919, of which 36,314 were granted before the year closed, the number of old interests removed and new interests recorded being 41,500 and 47,414 respectively. The number of undisposed of cases at the close of the year was 9,963, of which 156 cases had been pending for more than six months.

Partitions.

31. There were 273 partition cases pending at the close of 1915-16 and 48 cases were instituted during the year under report, making a total of 321 for disposal. The number of cases disposed of was 50, including 10 cases which were struck off for various reasons. Out of a total of 271 cases left undisposed of at the close of the year, 160 have been pending for more than two years. Special officers were employed during the year exclusively on partition work in Khulna, Mymensingh, Faridpur, Rajshahi and Dinajpur. Estates Partition Funds exist only in the districts of Jessore, Dacca and Mymensingh. The incidence of cost per acre of the area partitioned during the year in these districts was 12 annas 4 pies, 8 annas 5 pies, and 2 annas 2 pies, respectively.

Land Acquisition.

32. Proceedings for the acquisition, on behalf of Government and local bodies and companies, of land covering an area of 5,639 acres were confirmed at a total cost of Rs. 71,17,478 as against an area of 2,560 acres at a cost of Rs. 28,16,078 in the preceding year. Of the total expenditure incurred a sum of Rs. 25,46,749 was for the acquisition of lands required for Government, including State Railways and Companies' Railways provided with land free of cost, and Rs. 45,70,729 for all other purposes, viz., for District Boards, Municipalities, Calcutta Improvement Trust, and Railway and other Companies. The average cost per acre of the lands for which acquisition proceedings were confirmed during the year was Rs. 1,262 against Rs. 1,100 in the preceding year. The increase in the average cost is chiefly due to the fact that proceedings for the acquisition of more valuable lands in the town of Calcutta and its suburbs in the district of the 24-Parganas were confirmed during the year.

Loans—(a) Land Improvement Loans Act.

33. The amount of loans under the Land Improvement Loans Act outstanding at the beginning of the year was Rs 2,27,244 and loans amounting to Rs. 70,985 were advanced during the year under report. Out of the sum advanced during the year Rs. 67,585 was advanced in Bankura district alone where distress on account of failure of crops was acute during the first half of the year. Of Rs. 2,98,229, the total outstanding principal, Rs. 54,213, was repayable during the year. Out of this Rs. 43,737 was realized, including Rs. 866 collected in advance, while Rs. 1,818 was remitted. The balance outstanding at the close of the year was Rs. 2,52,674, of which Rs. 9,524 was overdue. Of Rs. 7,521 due on account of interest, current and arrear, the collections during the year amounted to Rs. 6,623.

(b) Agriculturists' Loans Act.

34. The amount advanced during the year under the Agriculturists' Loans Act was Rs. 8,39,291. The largest sums were issued in the districts

of Bankura (Rs. 5,62,958), Burdwan (Rs. 1,03,983) and Noakhali (Rs. 68,200). In Bankura famine prevailed at the beginning of the year. In Burdwan and Noakhali there was severe distress on account of floods. The outstanding balance of the previous year was Rs. 18,20,984, making the aggregate amount outstanding Rs. 26,60,275, of which Rs. 13,33,035 was recoverable within the year. The total collections amounted to Rs. 11,29,929 including Rs. 17,877 paid in advance and excess, and Rs. 6,234 was remitted. The balance recoverable in future years is Rs. 15,24,114 of which Rs. 2,10,722 was overdue at the end of the year. The amounts overdue in the districts of Mymensingh, Tippera and Noakhali are heavy. Of Rs. 1,36,444 due on account of interest, current and arrear, Rs. 1,14,803 was collected (including Rs. 596 paid in advance and excess), Rs. 2,287 was remitted and Rs. 451 suspended, leaving a balance of Rs. 19,499 overdue at the end of the year.

Surveys.

(Report of the Survey Department, Bengal, for the year ending the 30th September 1916.)

Outturn of the year.

35. Traverse survey of 1,382 square miles was completed including 747 square miles in Tippera and 578 square miles of diara area, comprising *chars* in the Ganges adjoining Rajshahi district and riparian lands in the Malda district. The Survey Department also had in hand a substantial amount of miscellaneous surveys and mapping including Howrah Town survey, topographical revision of the Calcutta added area and traverse of a zamindari estate (Mathurapur) in Malda.

Land Records and Settlements.

(Annual report of the Director of Land Records for the year ending the 30th September 1916).

General.

36. Cadastral survey and preparation of records of rights under the supervision of the Director of Land Records were in progress in sixteen districts. The settled area of the Province in which the Bengal Tenancy Act is in force is 63,893 square miles. The total area of which a record of rights has been completed amounts to 19,486 square miles.

Land Revenue settlements.

37. As in previous years large re-settlements of land revenue were made in the course of these operations mostly in Murshidabad, Dacca, Mymensingh, Bakarganj, Faridpur and Noakhali. The operations in Bakarganj resulted in an increase of revenue by 15·64 per cent. The diara resumption proceedings carried out in Dacca, Midnapore and Mymensingh were also extensive. With the increase of these proceedings difficulties have constantly arisen from want of the old maps from the time of the Permanent Settlement. These maps, hitherto regarded primarily as of historical interest, have thus acquired a considerable practical value. They are not now available in India and accordingly opportunity was taken of Major Hirst's furlough to depute him for their study at the India Office and the British Museum.

Other settlements.

38. Major operations were in progress in the districts of Dacca, Mymensingh, Midnapore, Rajshahi, Noakhali and Tippera. No new district was taken up on account of economies enforced by the war.

Dacca.

39. The operations in Dacca were in their closing stages and the programme consisted of 704 square miles of mapping, 945 square miles of printing, 1,415 square miles of recovery and 500 square miles of case work. Work was done in advance of the programme in most branches.

Mymensingh.

40. In Mymensingh the attestation of records of 1,128 square miles was practically completed. In objection, janch, printing and case work, the work was in advance of the programme which consisted of 1,192, 914, 1,080 and 1,380 square miles, respectively. There were some arrears in recovery and mapping and on account of the reduction of the budget of 1915-16 the progress of case work, though in advance of the programme for the year, was behind the programme of that work as estimated up to the end of the year.

Midnapore.

41. The programme of work in Midnapore consisted of 293 square miles of cadastral survey. 968 square miles of attestation and objection, 1,680 square

miles of janch, 1,549 square miles of mapping, 1,230 square miles of printing and 1,793 square miles of recovery.

An area of 293 square miles was cadastrally surveyed and the detail survey of the district is now complete. In attestation, objection and printing, the outturn was in advance of the programme and in mapping the programme was nearly completed. The programme of janch could not be fulfilled owing to the difficulty in obtaining and retaining an efficient and healthy staff. Recovery was only started this year and the progress made was satisfactory for the first year of the work. Owing to reduction of the budget estimates case work could not be taken up.

Rajshahi. 42. The programme of work in Rajshahi consisted of 685 square miles of cadastral survey to preliminary recess, 720 square miles of bujharat, 860 square miles of attestation, 940 square miles of objection, 930 square miles of janch, 868 square miles of mapping and printing and 870 square miles of computation and recovery. All items except recovery were nearly completed during the year.

Tippera and Noakhali. 43. In Tippera and Noakhali the programme for the year consisting of 833 square miles of cadastral survey, khanapuri, recess and bujharat, 706 square miles of attestation and 637 square miles of objection and janch was duly completed.

Minor settlements. 44. Minor settlement operations of scattered estates were in progress in ten districts. The system of field bujharat (local explanation of the record) was introduced in all minor operations and the result was eminently satisfactory. In Burdwan the operations spread over an area of 31 square miles comprising 24 estates and the side lands of the Grand Trunk Road. Considerable progress was made in case work, which was finished in seven of these estates. In Hooghly the operations were completed according to the programme before the end of the year. In the 24-Parganas the programme comprised eight scattered estates with a total area of 24·16 square miles at different stages of work. The large Government estate of Kamarpole has reached the stage of settlement of rents. No new work was taken up in the districts of Nadia and Murshidabad but work was done in the old pending estates. The most important minor operation of the year was the revisional settlement of the Fatehsingh Estate belonging to the Nawab Bahadur of Murshidabad, preliminary to the introduction of a scheme of continuous maintenance of the record and the application of the certificate procedure for recovery of arrears of rent. The original record of the estate was prepared eight years ago and the initial revision of that record is now in progress. No new estates were taken up for resettlement of land revenue in Faridpur or Bakarganj during the year but satisfactory progress was made with pending estates. Twenty Government and temporarily-settled estates and one private estate (Dandra) were under settlement in Noakhali during the year and considerable progress was made. In Malda work was in progress in one estate (Mathurapur) which was taken up on the application of the proprietor.

Boundary marks. 45. Out of a total 30,842 boundary marks 16,097, *i.e.*, about 52 per cent., were inspected. Four hundred and eighteen marks were found damaged and 1,252 marks were missing. Three hundred and forty-nine marks were restored.

Waste Lands.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

Waste Lands. 46. The rules for the grant of waste land leases to large capitalists in the 24-Parganas and Khulna portions of the Sundarbans still continued to be under suspension. Raiyatwari settlement on the lines of the Bakarganj Colonization Scheme is being made as an experiment in certain of the Sundarbans lots in the 24-Parganas by a special officer selected for the purpose.

The number of leases granted under the large Capitalists' Rules of 1879 and under the rules of 1853 was the same as before, viz., 188 and 93, respectively, in the 24-Parganas, and 22 and 38, respectively, in Khulna. The revenue payable in respect of them during the year was Rs. 1,22,424

and Rs. 79,501, respectively, in the former district and Rs. 12,392 and Rs. 54,076, respectively, in the latter. This will eventually rise to Rs. 2,35,196 and Rs. 80,163 in the 24-Parganas and to Rs. 22,206 and Rs. 55,769 in Khulna. The number of leases granted in Saugor Island was six as before, and the revenue payable during the year was Rs. 5,029, which will rise eventually to Rs. 11,931. In Jalpaiguri *parwanas* for possession were issued in respect of five waste land *jotes* settled during the year. Leases in proper form will be issued now that the form for arable waste land leases has been finally approved.

Government Estates.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

Number and management.

47. The total number of estates under direct management, including those of private individuals managed by Government, was 2,281, with a current demand of Rs. 42,80,162 (excluding that of the Orphangunge Market, Hastings Estate and Madhab Babu's Bazar in the 24-Parganas). The percentage of cost of management on the current demand was 7·44. The condition of the tenants in Government estates was satisfactory during the year under report. Nearly the whole of the balance of loans advanced after the flood of 1913 was repaid by the tenants in the Contai khas mahals in Midnapore during the last cold weather. The tenants of Char Sujanagar in the Katwa Subdivision in the district of Burdwan, however, have not yet recovered from the effects of the flood. The crops were generally good, except in estates Painabad and Heyshamabad in the 24-Parganas, where bunds were washed away, and in parts of the districts of Khulna, Bakarganj, Pabna and Mymensingh, which suffered from the heavy floods of September. In Chittagong some damage to the crops was done by wild elephants and by heavy rains at sowing time and floods at the end of the rainy season. The cyclonic storm of May 1916 damaged the embankments in the Cox's Bazar Subdivision.

Grant for improvements.

48. Of the total amount of Rs. 62,800 expended on miscellaneous and sanitary improvements Rs. 2,213 was spent on tanks and wells, Rs. 40,486 on drainage, irrigation and embankments, Rs. 2,586 on roads and bridges and Rs. 17,515 on miscellaneous works, including planting trees.

Colonization in the Bakarganj Sundarbans.

49. The year under report was the tenth year of the Colonization Scheme. There were 638 new colonists settled on 24,805 bighas of land against the corresponding figures of 416 colonists and 24,070 bighas in 1915-16. The expenditure incurred during the year on the scheme amounted to Rs. 50,475. The total amount advanced during the year to the colonists as loans was Rs. 8,000, and a sum of Rs. 18,862 was realized from them. The progress of reclamation was satisfactory. Twenty-one rural co-operative credit societies were in existence in the colonization area at the beginning of the year and two new societies were registered during the year.

Roads.

50. The total expenditure on roads and communications in Government estates amounted to Rs. 3,09,195, against the Government grant of Rs. 70,335 (being one and-a-half per cent. on collections from these estates) allotted for the purpose. The excess expenditure was met from the District Boards and other local funds.

Education.

51. The total number of schools in Government estates and of pupils attending them was 2,241 and 75,998 in 1916-17, against 2,293 and 76,570, respectively, in the preceding year. The decrease both in the number of schools and of pupils is attributed to the fact that several schools in Bakarganj and Noakhali situated in private estates and wrongly aided from the Government grant of one per cent. were excluded from the list of khas mahal schools. A sum of Rs. 76,189 was spent on education in Government estates against the one per cent. grant of Rs. 46,890, the excess expenditure being met from local grants.

Sale of estates.

52. Two estates were sold, free of revenue, in Faridpur for Rs. 244 under the orders of the Government of India, and two plots of land, covering an area of about 1·56 acres, in the Panchannogram Government estate in the 24-Parganas were sold, also free of revenue, at a total price of Rs.56,254.

Wards' and Attached Estates.

[Report on the Administration of Wards' and Attached Estates for the year 1916-17 (1323 B.S.)]

Number of estates and payment of Government demands.

53. The total number of estates under the management of the Court of Wards at the beginning of the year was 57. Two new estates were taken charge of during the year and four estates were released, leaving 55 estates in charge of the Court of Wards at the close of the year. The total amount of revenue and cesses due to Government, including an arrear demand of Rs. 1,22,335, was Rs. 13,93,562, of which 93·0 per cent. was paid against 92·1 per cent. in the previous year.

Rent and cesses due to superior landlords.

54. The percentage of payment of rent and cesses due to superior landlords increased from 79·6 in the year 1322 B.S. (1915-16) to 83·2 in the year under report, leaving a balance of Rs. 95,071 out of a total demand of Rs 5,85,290. The heaviest balances were due from the Basudebpur estate in the district of Midnapore, Janbazar estate in the district of the 24-Parganas, Bhawal estate in the district of Dacca, Karatiya estate in the district of Mymensingh, Dasmina and Bhukailas estates in the district of Bakarganj and the Kazi estate in the district of Tippera. The balances are mainly due to disputes, non-adjustment of accounts and accumulation of petty dues allowed by superior landlords.

Collection of rent and cesses.

55. The demand for rent and cesses due to the estates under management during the year was Rs. 1,03,86,971 including an arrear demand of Rs. 62,50,828. Out of this Rs. 45,79,527 or 44·0 per cent. was collected against 38·8 per cent. in the previous year. The percentage of collection on current demand was 110·7 against 94·5 in the preceding year. The standard of 100 per cent. collection on current demand was exceeded in a considerable number of estates in the Presidency. The decrease of collection in certain estates is attributed to the failure of crops.

Balances of rent and cesses due to estates.

56. The outstanding balances of rent and cesses due to all estates aggregated Rs. 57,42,270 representing 138·8 per cent. on the current demand and 55·2 per cent. on the total demand against 145·8 per cent. and 59·5 per cent., respectively, in the previous year. The balances exceeded the current demand in all but the Rajshahi Division. As regards the estates in which the balances exceeded 25 per cent. of the current demand, the percentage of total balance on the current demand was 114·1 in the Burdwan, 117·5 in the Presidency, 199·6 in the Dacca, 108·8 in the Chittagong and 74·4 in the Rajshahi Division. These figures show a large increase in the Burdwan Division but a decrease in all the other Divisions. But of the balance in the Pachetgarh estate, a large amount is irrecoverable and will be written off as soon as the settlement operations are completed. The increase in the outstanding balance in the Jhargram estate is mainly due to the addition of arrears of five years from 1319 to 1323 on account of the increment of rent decreed by the High Court in settlement cases against the tenure-holders. The heavy balance in Nayabasan estate is due partly to the fact that during the survey and settlement operation, the tenants totally stopped payment of rent for about three years and partly to the partial failure of crops in the last few years. The large outstanding balance in the Basudebpur estate is attributed to the disorganization in which the affairs of the estate were found when the Court of Wards took charge of it. As stated in previous reports, the large balance in the Tagore estate includes a considerable amount of irrecoverable demands in respect of which no remission could be allowed in view of the approaching release of the estate, consequent on the suit brought by the mortgagees having been decreed. The large balances in the estates in the Dacca and Mymensingh districts, it is expected, will be considerably reduced on the revision of their rent-rolls on the conclusion of the settlement operations now in progress.

Debts of estates.

57. With a few exceptions, all the estates in the Presidency are more or less heavily encumbered. The total of the debts of all the estates stood at Rs. 85,94,130 after payment of Rs. 4,06,036 during the year, the current rent and cess demand of the estates being Rs. 41,36,143. The debt of the Jhargram estate was brought down from Rs. 4,74,318 to Rs. 4,52,173 by a payment of Rs. 48,580 including interest. The debt of the Basudebpur estate,

which was taken charge of during the year, stood at Rs. 3,70,150 at the end of the year. It has been arranged to compound the debt of Rs. 1,86,342 due to the Raja of Narajole by payment of Rs. 72,020 in cash at once and of Government Promissory Notes of the value of Rs. 36,000 by January next in full satisfaction. The decree obtained by the mortgagees against the Tagore estate has become absolute and the properties will shortly be put up to auction. For the reduction of the loan of the Mukharji estate, negotiations are being carried on for the raising of a loan with interest not exceeding 6 per cent., and it is hoped that these will prove successful. The labours of the Special Officer appointed to investigate into the claims against the Bhawal estate have not yet been finished. No appreciable payment could be made towards the principal of the debt of the late Nawab Sir Salimulla, but it is expected that by the sale of the Nurullapur property a substantial payment will shortly be made. Some of the creditors of Khwaja Attikulla have obtained decrees against him and unless an amicable arrangement can be made with them for payment of their debts, affairs with regard to this estate may take a serious turn. The debts of the Karatia, Golakpur and Sherpur estates were reduced by Rs. 17,668, Rs. 56,688 and Rs. 7,726, respectively. The debt of the Bhukailas estate No. 1 was reduced by Rs. 10,134, but the debt of the Kazi estate increased by Rs. 2,660. The heavy expenditure on account of the marriage ceremony of the ward, the funeral and the *Fateha* ceremony of the ward's father and the cost of survey and settlement operations retarded the payment of the debt of the estate.

Management charges.

58. The percentage of the cost of management on the current rent and cess demand of estates for the whole Presidency rose slightly from 12·6 to 13·0. The standard of 10 per cent. was exceeded in all the divisions except Chittagong. The percentage of cost increased in the Janbazar estate from 14·8 to 16·7 and the question of reducing the cost of management has been taken up by the Collector of the 24-Parganas. The increase was remarkable in the Karatiya estate in the district of Mymensingh, where it rose from 15·2 per cent. to 26·1 per cent. in the course of the year. This is due to the fact that a very large amount was paid to the patwars of the estate on account of the arrear commission on adjustment of their accounts.

Improvements.

59. The standards fixed for expenditure on schools and on agricultural and sanitary improvements are one and three per cent. respectively of the current rent and cess demand of an estate. There is no standard fixed for expenditure on other works of improvements. The total expenditure for the Presidency under all these heads during the year was Rs. 1,68,837. In accordance with the instructions issued by the Board last year, agricultural demonstrations in wards' estates are now carried on mostly under the supervision of the officers of the Agricultural Department.

Lady Adviser.

60. The designation of the post held by Miss Cornelia Sorabji has been changed from "Lady Assistant" to "Lady Adviser to the Court of Wards." She has done useful work in affording the ladies of the zenanas of wards' estates the benefit of her advice in various matters, particularly with regard to the health, comfort and education of these ladies and of minor wards.

Education of the wards.

61. The education of wards received due attention and progress was generally satisfactory. In accordance with the scheme for giving minors under the Court of Wards some training in survey and settlement work, a son of a ward attended the training camp during the field season of 1916-17.

Revenue-and Rent-paying classes.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

Bengal Tenancy Act.

62. The Bengal Tenancy Act is in force throughout the Presidency, except in the district of Darjeeling, the Chittagong Hill Tracts and the town of Calcutta.

Relations between landlords and tenants.

63. Strained relations between landlords and tenants were noticed in certain parts of the Presidency, the most common causes of friction being enhancement of rent, *abwabs* and money-lending. The settlement record-of-rights is reported to be much appreciated by the tenants in the Dacca district

as they find it to be of the greatest assistance to them in combating the illegal claims of their landlords.

Rent receipts.

64. In 59 cases proceedings were taken for failure to grant rent receipts as provided in the Bengal Tenancy Act. Of these 22 cases ended in conviction, 18 were struck off or dismissed and 19 were pending at the close of the year.

Illegal cesses.

65. The practice of levying illegal cesses or *abwabs* in some form or other in addition to the stipulated rent is prevalent throughout the Presidency. In order to maintain amicable relations with their landlords, the tenants submit to these exactions without much demur, and regular complaints are rarely received. In Bakarganj, Road and Public Works Cesses continued to be levied at higher rates than those prescribed by the law. There was no regular suit under section 75 of the Bengal Tenancy Act to resist these demands, but in Midnapore some instances were brought to notice in the course of survey and settlement proceedings and dealt with under section 74 of the Act.

CHAPTER III.—PROTECTION.

Legislative Authorities.

See—

General Administration Report for 1912-13, Part II, pages 13, 14.

Course of Legislation.

66. No Act was passed by the Bengal Legislative Council during the year 1916-17. **Acts passed during 1916-17.**

67. There was only one Bill before the Legislative Council during the year, namely, the Calcutta Hackney-carriage (Amendment) Bill, 1916 (to amend the Calcutta Hackney-carriage Act, 1891). This Bill was introduced in the Bengal Legislative Council and it was referred to a Select Committee on the 4th July 1916. The Select Committee's Report was presented and taken into consideration by the Council on the 7th August 1916. The Select Committee, in their report, were of opinion that the Bill did not deal adequately with all the additions and alterations which they found necessary in the existing Calcutta Hackney-carriage Act, 1891, and that these additions and alterations, if fully carried out, would involve almost the entire recasting of that Act. They thought also that the wording of the existing Act was defective in many respects. They found, however, that they could not include in the Bill all the necessary changes without going beyond the scope of a mere amending Bill. They accordingly recommended that the amending Bill should be abandoned, that the existing Hackney-carriage Act of 1891 should be reconsidered as a whole and that a consolidating and amending Bill should be prepared for introduction in the Council. The amending Bill was abandoned accordingly by a motion in the Legislative Council passed on the 7th August 1916. **Bills pending during 1916-17.**

Bengal Police.

[The Report on Police Administration in the Bengal Presidency for the year 1916. Statistics of British India, Part VI—Administrative and Judicial.]

68. No permanent additions were made to the superior cadre of the police force during the year, but two temporary appointments of Superintendent of Police were sanctioned for the Intelligence Branch and four temporary appointments of Deputy Superintendent were made against vacancies in the rank of Assistant Superintendent caused by the stoppage of recruitment for the Indian Police in England owing to the war. The Sealdah section of the Eastern Bengal Railway Police was partially reorganised. The staff of the Criminal Investigation Department and Finger Print Bureau was strengthened and allowances were granted at increased rates to the officers and men employed in the Intelligence Branch of the Criminal Investigation Department. **Administration.**

In consequence of the transfer to the jurisdiction of the Government of Bihar and Orissa of the portion of the East Indian Railway line running through that province, there was a nominal decrease of 165 in the strength of the subordinate police, but excluding the Railway Police there was an actual increase of 4 Inspectors, 10 Sub-Inspectors, 19 head constables and 82 constables, due mainly to the opening of seven new investigating centres during the year. The proportion of police to population was still much lower in Bengal than in other provinces. A scheme for increasing the reserve was

submitted for the sanction of the Government of India. The urgent need for splitting up unwieldy investigating centres, especially in Eastern Bengal, was recognised, and provision for nine more such schemes was made in the budget for the year.

Recruitment.

69. Recruitment during the year was on the whole satisfactory, and the vacancies in the sanctioned strength, which had caused anxiety a few years before, practically disappeared. The number of resignations also decreased materially. This was attributed to the raising of the pay of constables effected two years before. There was an increase in the number of local recruits, especially in the Dacca Range, where, out of 873 recruits, 689 were local men, 475 being Muhammadans. Difficulties began to be experienced in the recruitment of head constables owing to the paucity of constables with the necessary qualifications. Direct recruitment for 50 per cent. of the vacancies in the rank of head constables was sanctioned as a temporary measure pending the receipt of further proposals from the Inspector-General.

The health of the force showed a notable improvement, consistently with the healthiness of the year, and the distribution of 2,000 mosquito-nets and 1,304 iron cots to the most unhealthy districts had good results.

Discipline.

70. The discipline of the force was satisfactory. An increase in departmental offences was accompanied by a decrease in major punishments awarded. The number of criminal complaints brought by private persons against the police was 409 as compared with 449 in the previous year. Out of 373 cases disposed of by the Courts, only 67 ended in conviction, and the remainder in acquittal or discharge. Only two superior officers were convicted, a Sub-Inspector of bribery, and a Probationary Sub-Inspector of torture. One head constable and four constables were convicted of bribery, three constables of torture and extortion, while three head constables and fifty-nine constables were convicted on minor charges of assault and wrongful confinement. The high proportion of acquittals shows that the practice of bringing false and frivolous charges against the police still persists, but the small number of serious offences proved and of superior officers implicated may fairly be claimed as evidence of improvement in the general morale of the force and of the effectiveness of the supervision exercised over the subordinate ranks by gazetted officers. Out of 31 civil suits instituted against the police, 3 were withdrawn, 3 decreed and 15 dismissed. More than 4,000 officers and men, or about 20 per cent. of the force, earned rewards or good service marks during the year.

Buildings.

71. The provision of suitable accommodation for the police in the mufassal has long been recognised as one of the most urgent needs of the department, but, owing to financial stringency, only Rs. 9½ lakhs could be allotted for this purpose during the year. The building allotment for the current year has, however, been raised to Rs 16 lakhs, most of which will be spent on urgent schemes for housing the subordinate police. Much remains to be done in this connection, and the building projects administratively approved will cost more than 90 lakhs of rupees.

Military Police.

72. The Dacca Military Battalion again earned the commendation of the military authorities for its high state of efficiency and rendered valuable service to the civil police in the maintenance of order on several occasions. The keenness and prestige of the battalion were much enhanced by the acceptance of a force of over 100 men for service at the front.

River Police.

73. The river police who had been mobilised for special duty in August 1915, again became available for ordinary work in January 1916. The Meghna and Barisal divisions were then established and five new police stations were subsequently opened. The fleet was increased by four new floating stations, but two stations were transferred to the Assam Administration in consequence of the transfer of jurisdiction over the rivers flowing through that province. Three station launches and two Inspectors' launches were taken over by the military authorities before delivery, and the former only were replaced temporarily by hired vessels.

Village Police.

74. There were no important changes in the village police system, and the matter was rather in abeyance while Government were considering a wider scheme of village self-government. A Bill dealing with the whole question was submitted to the Government of India.

Crime.

75. The criminal statistics showed that crime was still in excess of the standard of pre-war days. There was, however, a satisfactory improvement in dacoity cases, which fell to 516, or 137 less than in 1915. In Bakarganj, where dacoities in 1915 were so numerous that a Special Commission under the Defence of India Act had to be constituted to deal with them, the number of cases fell from 158 to 36. The liberal distribution of rewards for the capture of dacoits did much to stimulate the co-operation of the public in dealing with this form of crime. The figures regarding other forms of serious crime showed a slight increase, but the Inspector-General was probably justified in attributing this mainly to better reporting due to the opening of new police-stations, which afford the sufferers from petty burglaries and thefts greater facilities for bringing their losses to notice. There was also a slight increase in rioting cases, but it is noteworthy that in Mymensingh, where land disputes have in the past constantly led to serious riots and loss of life, the record-of-rights recently prepared brought about a substantial diminution in this form of crime.

Criminal Investigation Department.

76. The resources of the Criminal Investigation Department were severely strained during the first half of the year in getting under control the unprecedented outbreak of dacoity which occurred in 1915. In the districts chiefly affected, the existence was discovered of 44 gangs responsible for no less than 240 dacoities, or preparations for dacoity, and 230 burglaries. Of the cases with which the department was concerned, 57 ended in the conviction of 136 persons on specific charges, while 288 persons were bound down under the preventive sections of the Criminal Procedure Code. The results of this action were apparent in the decrease of dacoities. Ordinary station officers are at a disadvantage in dealing with professional criminals whose operations extend over more than one district, and in the 24-Parganas, where crime of this kind is rife, a special detective staff was sanctioned. Arrangements were also made to establish a training school on modest lines, where officers who have shown an aptitude for detective work will be instructed in modern methods.

Criminal Tribes.

77. Sixteen more criminal tribes or gangs were brought within the operation of the Criminal Tribes Act during the year, but towards its close action was retarded in order to consolidate the work already begun. The organisation of the Karwal Nut settlement at Saidpur under the Salvation Army was not completed.

Revolutionary crime.

78. The number of cases connected with revolutionary crime was 24 against 36 in the previous year. These cases included 16 dacoities, two attempted dacoities and six murders; of these one dacoity and two murders were committed in Calcutta. On the 16th January 1916, Sub-Inspector Madhusudhan Bhattacharji, of the Calcutta Special Branch, was shot dead in College Street, and on the 30th June Deputy Superintendent Basanta Kumar Chatarji, of the Intelligence Branch, was assassinated by five Bengali youths in Bhowanipur. An orderly head constable who was accompanying him was also shot and subsequently succumbed to his injuries. Two watcher head constables were also murdered at Dacca in the performance of their duty. A man suspected of being a police spy was shot dead in Noakhali early in the year, and shortly after another man who had been under suspicion of aiding the police was murdered in Mymensingh, and the Head Master of the Malda Zilla School was cruelly murdered for the same reason. There were 16 dacoities, in the course of which seven persons were killed or fatally wounded. In one of the dacoities in the Tippera district, the villagers offered a stout and plucky resistance. Five of them were killed and five wounded, while one of the dacoits, who was subsequently identified as a man who had absconded from the place of domicile assigned to him under the Defence of India Act, died as the result of injuries inflicted upon him by the infuriated villagers. Liberal provision was made for the families of the murdered police officers and villagers. One of the murderers of the Malda Head Master was convicted and sentenced to transportation for life, and convictions were obtained in many of the cases connected with conspiracy. The most important of these cases were tried by Special Commissioners appointed under the Defence of India Act. In the first case six persons were tried for conspiracy, of whom two were convicted and sentenced to five and two years' rigorous imprisonment,

respectively. In the second case one Jugul Kishore Datta, who fired a Mauser pistol point blank at a head constable, was sentenced to five years' rigorous imprisonment. In the third case seven persons arrested in connection with the Ramdianali dacoity in Dacca were all sentenced to seven years' rigorous imprisonment each. In the fourth case one Ajit Krishna Sen was tried for having in his possession certain highly explosive substances. He was sentenced to three years' rigorous imprisonment. In another case one Nibaran Ghatak and a woman were tried for having in their possession arms and ammunition which they had secreted on behalf of the revolutionary party. Both the accused were sentenced, the former to five years and the latter to two years' rigorous imprisonment. A seditious outbreak occurred among certain Uraon coolies employed in the tea gardens of the Jalpaiguri district. Seven persons were arrested and placed on trial before a special commission; six were sentenced to three years' rigorous imprisonment each and one was acquitted.

Several dangerous revolutionaries armed with revolvers were arrested in the streets of Calcutta. These and certain other persons implicated in revolutionary crime were placed under restraint under the Defence of India Act.

Mortality caused by wild animals and snakes.

[Report on the above and measures taken for their destruction during 1916. Statistics of British India, Part V—Area, population and public health.]

Wild animals.

79. The number of persons killed by wild animals decreased from 423 in 1915 to 367 in 1916, the decrease being chiefly in the Presidency and Rajshahi Divisions. There was an appreciable decrease in the number of deaths caused by tigers, leopards and bears, the total figure being 134 in 1916 against 177 in 1915. The number of deaths caused by hyenas shows an increase of 13 in 1916, which occurred only in the district of Midnapore.

Snakes.

80. The number of persons who died from snake-bite decreased from 4,709 in 1915 to 4,114 in 1916, the decrease being in the Presidency, Dacca, Rajshahi and Chittagong Divisions, where the figures declined from 1,318, 816, 1,279 and 170 in 1915 to 1,274, 517, 1,051 and 131, respectively, in 1916. The Burdwan Division shows an increase of 17 only.

Cattle killed by wild animals.

81. The collection of statistics regarding the number of cattle killed by wild animals and snakes during 1916 has been abandoned.

Destruction of wild animals.

82 The number of wild animals for the destruction of which rewards were paid was 798, the majority of which were destroyed in the Dacca Division. As in pursuance of the orders of the Government of India, no account was taken of the number of wild animals for the destruction of which no rewards were paid, no comparison can be made with the figures (2,762) of wild animals destroyed during 1915. The same principle was followed in taking into account the number of snakes (1,171) destroyed during 1916, and as such there can be no comparison with the number of snakes (11,892) destroyed in 1915. The amounts paid for the destruction of wild animals and snakes were Rs. 7,229-4-0 and Rs. 170-1-0, respectively, the corresponding figures for 1915 being Rs. 17,977-12-0 and Rs. 178-13-0.

Police Administration in Calcutta.

[The Annual Report on the Police Administration of the town of Calcutta and its suburbs for the year 1916. Statistics of British India, Part VI—Administrative and Judicial.]

Civil armed Police.

83. The Calcutta Police force was strengthened during the year by the formation of a third company of civil armed police to ensure the adequate protection of public buildings in the city, and to increase the mobile striking force immediately available in case of emergencies.

Reorganization of the superior staff.

84. The most important event of the year was the reorganization of the superior branches of the Calcutta police force. Experience had shown that the arrangements previously in force were defective, in that they provided

no clear line of division between administrative and executive duties and rendered it impossible for the Deputy Commissioners, who were overburdened with executive and miscellaneous work, to render efficient assistance to the Commissioner in administrative matters. The city of Calcutta was accordingly divided for general police purposes into two administrative divisions, each in charge of a Deputy Commissioner, who is directly responsible to the Commissioner for the police administration of the division. Each division was further divided into two executive districts, town and suburbs, each in charge of an Assistant Commissioner. Two more Assistant Commissioners were allotted to the Port Police Division and to the Special Branch respectively. These six posts of Assistant Commissioners were reserved for officers of the Calcutta Police who have shown themselves fitted to exercise responsible functions in regard to the executive control over the direct investigation of crime. The separation of the investigating and patrol staff was also effected during the course of the year.

85. The grant of a bonus of Rs. 6-8 to each recruit was sanctioned in order to encourage the recruitment of constables. **Bonus to Constable recruits.**

86. The total number of true cognizable cases reported during the year was 100,413, an increase of 4,000 over the previous year, mainly in petty cases under the Police Act, which formed 71 per cent. of the total number of cases. In regard to more serious crime, the statistics show few important variations. **Crime.**

There was a remarkable falling off in excise cases during the last two years, owing mainly to the decrease in prosecutions for selling cocaine in the streets. The stoppage of the trade with Germany and Austria reduced the supply of the drug.

The Detective Department gave valuable assistance to the ordinary police during the year, and successfully prosecuted three gangs of coiners and a dangerous gang of swindlers, besides breaking up a band of Europeans and Anglo-Indians who had been trafficking in arms with members of the revolutionary party.

87. Of the 804 juvenile offenders convicted during the year, 740 were tried in the Special Court attached to the House of Detention and only 6 were actually sent to jail. **Juvenile offenders.**

Criminal Justice.

[Report on the Administration of Criminal Justice in the Presidency of Bengal during the year 1916. Statistics of British India, Part VI.—Administrative and Judicial.]

88. For sessions work, the staff consisted of 21 Sessions Judges and 10 Additional Sessions Judges employed throughout the year. Four Subordinate Judges were vested with the powers of Assistant Sessions Judge. They were employed in Mymensingh, Faridpur, Bogra, Midnapore, Hooghly, Rajshahi, Dacca, and Tippera where they decided altogether 89 cases. One covenanted officer, who was under judicial training at Nadia, disposed of 9 sessions cases as Assistant Sessions Judge. Besides the above, one temporary Additional Sessions Judge was employed in the district of Rajshahi for six weeks. The magisterial staff employed at the close of the year, including that of the Presidency town, consisted of 349 stipendiary and 779 honorary magistrates. These figures represent a decrease of 28 and 23, respectively, on the numbers of the previous year. Three special magistrates were employed in Noakhali, Mymensingh and Khulna, where they decided 104 cases. Of the 349 stipendiary magistrates 229 exercised first, 87 second, and 33 third class powers. **Judicial staff.**

There were 127 benches of magistrates constituted from among 702 honorary magistrates in the mufassal. Of the total 101 were independent and 26 were restricted to the trial of cases under the Municipal Act.

There were 330,071 criminal offences reported during the year, a decrease of 1,291 on the figures of 1915. Of the total, 171,531 were under the Indian Penal Code and 158,540 under special and local laws. These totals are less by 124 and 1,167, respectively, than those of 1915. The decrease was most marked in Khulna, Chittagong, Tippera, Noakhali and the 24-Parganas as

regards offences under the Penal Code, and in Howrah and in the Presidency town as regards offences under special and local laws.

False cases.

89. The number of cases found to be false, or in which complaints were dismissed, was 56,018, or 16·9 per cent. of the number reported during the year. These figures include cases pending enquiry at the close of 1915. The percentage for the preceding year was 16·5. Complaints were dismissed in 50,689 cases, or 745 more than in 1915. The number of cases declared to be false after trial or inquiry was 5,329, or 572 more than in 1915.

True cases.

90. Of the total number of cases under inquiry, 273,018 were found to be true, and of these 226,326 were brought to trial. Inquiries were pending at the close of the year in 14,979 cases. Compared with 1915, the number of cases found to be true and the number brought to trial show a decrease of 3,541 and 2,221, respectively.

ORIGINAL JURISDICTION.

I.—Magistrates' Courts.

Total cases for trial.

91. Of the total number of cases brought to trial, 89,758 were in the courts of the police and municipal magistrates in the Presidency town, and 136,568 in the courts of magistrates in the mufassal.

A.—Presidency Magistrates, Calcutta. Cases for trial.

92. The number of cases brought before the Presidency Magistrates, including the municipal magistrates, was smaller by 2,157 than in 1915. The number of cases under special and local laws was 83,213, or 2,717 less than in 1915, while cases under the Penal Code rose from 5,985 to 6,545. The decrease under the former head was most marked in offences under the Police Act which fell from 52,943 to 51,759. The number of offences under the Act for the Prevention of Cruelty to Animals fell from 6,363 to 5,629, and under the Bengal Motor Car and Cycle Act, from 1,479 to 1,059. There was a noticeable increase, on the other hand, in offences under the Hackney and Stage Carriages Acts, which rose from 1,622 to 1,894. As regards offences under the Penal Code, there was an increase in offences affecting the public health, safety, etc., which rose from 1,495 to 2,316. Before the Presidency Magistrates, other than the municipal magistrates, 71,617 cases were disposed of during the year, of which 34,813 were before stipendiary magistrates, 35,959 before honorary magistrates sitting singly, and 845 before benches. In 1915, 73,537 cases were decided, of which 48,732 were before stipendiary magistrates, 23,687 before honorary magistrates, sitting singly, and 1,118 before benches. Two hundred and sixty-nine cases were pending at the close of the year. Of the total number disposed of, 66 were committed to the High Court, and the remainder were finally decided by magistrates, 1,069 under ordinary, and the remainder under summary procedure. The number of witnesses examined before the police magistrates was 19,765, as compared with 20,949 in 1915. The number of those who attended and were discharged without examination was 776, or 3·7 per cent. of the whole number in attendance. Of the total number in attendance, 16,666 (81·1 per cent.) were discharged on the first day; 3,475 (17 per cent.) on the second; 331 (1·6 per cent.) on the third; and 69 (·3 per cent.) after the third day. The number of witnesses detained for more than three days was 66 less than in 1915. The number of cases brought before the municipal magistrates was 18,089, all of which were cases under the Calcutta Municipal Act, and were disposed of during the year; 17,557 were decided under the summary procedure. Compared with 1915, the number of cases instituted and disposed of shows a decrease of 193 and 192, respectively. The number of witnesses examined before the municipal magistrates rose from 3,467 to 3,837. Of the witnesses in attendance, none were detained for more than three days.

Results of trials.

93. The aggregate number of persons under trial before the Presidency Magistrates, other than the municipal magistrates, was 77,222. Of the persons tried, 7,892 were acquitted or discharged, 68,829 were convicted, 15 persons died, 91 persons were committed or referred to the High Court, and 395 remained under trial at the close of the year. Of persons acquitted or discharged, the cases of 5,344 were compounded, withdrawn or dismissed for default. Of persons tried for offences under the Penal Code, 4,213 were

convicted and 3,944 acquitted or discharged. The results of trials before each class of magistrates during the year are shown below :—

	Acquitted or discharged.	Convicted.	Percentage of conviction.
Stipendiary magistrates ...	4,396	32,777	88·1
Benches of ,, ...	108	813	88·2
Honorary magistrates sitting singly.	3,388	35,239	99·7

Of the persons convicted, 2,126 were punished with rigorous imprisonment, the sentence in the case of 10 persons including terms of solitary confinement ; 430 were punished with simple imprisonment ; 61,839 with fine ; and 160 with whipping. Seventy-two of the persons sentenced to fine were so sentenced in addition to other punishments.

Thirty-three sentences of imprisonment were, in the case of youthful offenders, commuted to detention in a reformatory school. Three thousand eight-hundred and seventy-eight convicted persons were warned and discharged.

In addition to these sentences, 225 persons were required to furnish security for good behaviour, of whom 223 were imprisoned in default for terms not exceeding one year ; 11 persons convicted of offences involving a breach of the peace were ordered to execute bonds to keep the peace ; 117 persons were released on probation under section 562, Criminal Procedure Code ; and various miscellaneous orders were passed under special laws in the cases of 119 persons. The number of persons released on probation of good conduct shows an increase of 17, as compared with 1915.

Before the municipal magistrates, 21,516 persons were under trial, of whom 20,494 were convicted, 1,020 were acquitted or discharged, and two died. The percentage of convictions was 95·1. Of the persons convicted, 14,693 were punished with fines, and the others were ordered to comply with the various requirements of the rules and by-laws of the Calcutta Corporation.

B.—Magistrates outside Calcutta. Cases for trial.

94. At the opening of the year, 4,977 cases, besides cases of lunatics, were pending before magistrates outside Calcutta. During the year, 136,658 cases including references under sections 347 and 349, Criminal Procedure Code, were brought to trial, 136,043 were disposed of, and 5,533 remained pending at its close. The cases brought to trial were less than in 1915 by 27. Under the Indian Penal Code the decrease was chiefly in offences against property (1,043). On the other hand, the increase was most marked in offences affecting the human body (233). There was an increase in cases under special and local laws. The variations under the other heads were slight.

A decrease in the number of cases instituted is reported from 13, and an increase from the same number of districts. The decrease was most marked in Howrah (3,135), Tippera (730), Pabna (676), Khulna (566), and Jessore (401), while the increase was greatest in the 24-Parganas (1,735), Dacca (675), Bakarganj (598), and Mymensingh (550). The decrease in Howrah was most prominent in cases under special and local laws and was most marked in offences under the Act for the Prevention of Cruelty to Animals and also under the Police Act. The increase in the 24-Parganas was chiefly in cases under the Police Act.

The disposals were distributed as follows :—

	Tried regularly.	Tried summarily.
District Magistrates	362	56
Subordinate stipendiary magistrates	71,083	35,223
Honorary magistrates	15,696	732
Benches of magistrates, ...	3,033	9,668
Special magistrates	104	....

In addition to the cases shown above, District and Subdivisional Magistrates decided 86 cases referred to them under sections 347 and 349 of the Code of Criminal Procedure.

The number of cases decided during the year was less than the number decided in 1915 by 527. The decrease occurred in the courts of subordinate

stipendiary magistrates, District Magistrates and special magistrates who disposed of 7,907, 188 and 24 cases less, respectively, than in the preceding year. The number of cases disposed of by benches of magistrates and honorary magistrates shows an increase of 6,521 and 1,071, respectively, as compared with 1915.

The total number of cases disposed of by District Magistrates was 504, the largest number having been decided by the District Magistrates of Bogra (95), Bankura (77), and Howrah (56).

Results of trials.

95. Of the total number of cases shown in the preceding paragraph, 1,387 were committed or referred to the sessions, and 134,656 were finally disposed of by magistrates. In these latter, 189,205 persons were accused, this number being 1,473 less than in 1915. Of the total, 101,998, or 53·9 per cent., were convicted, and 87,207, or 46·1 per cent., were acquitted or discharged. In 1915, 54·6 per cent. of the persons tried were convicted. Of the persons acquitted or discharged, the cases of 45,897 were compounded, withdrawn or dismissed for default. The percentage of conviction of persons actually tried was 71·1 against 71·6 in 1915. Of the persons tried for offences under the Indian Penal Code, 33,011, or 31·8 per cent., were convicted, and 70,905, or 68·2 per cent., were acquitted or discharged. Of the latter, the cases of 40,261 persons were compounded, withdrawn or dismissed for default. The percentage of convictions of persons actually tried under the Penal Code was 51·8 against 53·2 in 1915. The total number of persons awaiting trial before magistrates at the close of 1916 was 9,978, as compared with 9,323 in 1915. Of these, ten, who were on bail, were awaiting trial for more than six months. Explanations of the delay in the disposal of all cases pending for more than three months, submitted by the magistrates concerned, have been considered by the High Court, and the necessary orders have been passed on them. The number of persons in custody at the close of the year was 757, against 800 in 1915.

The general result of trials before magistrates of each class was as follows :—

	Acquitted or discharged.	Convicted.	Percentage of convictions.
Benches of magistrates	2,914	11,216	79·3
Subordinate stipendiary magistrates ...	73,853	78,968	51·6
Honorary magistrates	9,857	11,461	53·7
Special magistrates	79	61	43·5
District Magistrates	504	292	36·6

Of the persons shown as convicted above, the numbers tried summarily were by benches of magistrates, 9,977 ; by subordinate stipendiary magistrates, 36,505 ; by honorary magistrates, 595 ; and by District Magistrates, 44.

The mode of trial of the total number of persons convicted and the nature of the sentences passed were as follows :—

	Appealable sentence.	Non-appealable sentence.
On regular trial	34,574	19,984
On summary trial	3,769	43,095

Punishments.

96. The sentences passed on persons convicted were as follows :—

Imprisonment ...	Rigorous	16,521
	Simple	810
Fine	With imprisonment	2,461
	Without imprisonment ...	76,490
Whipping	Sole punishment	402
	Additional punishment ...	3

A term of solitary confinement was included in 61 of the sentences of rigorous imprisonment, and in the case of 38 youthful offenders the sentence of imprisonment was commuted to one of detention in a reformatory school. Three thousand eight hundred and twenty-seven persons were called upon to give security to be of good behaviour, 3,452 of whom were sentenced to terms of imprisonment not exceeding one year on failing to comply with the orders. Four hundred and ninety-six persons, against 470 in 1915, were released on

probation under section 562 of the Code of Criminal Procedure. Against 23 persons who had previously been so released, proceedings were subsequently taken; all were convicted and punished. In addition to substantive punishments, 4,342 persons were required to execute bonds to keep the peace, 1,037 on conviction of offences involving a breach of the peace. Of the sentences of imprisonment imposed, 3,496 were for terms not exceeding 15 days; 11,129 for terms not exceeding 6 months; 6,087 for terms not exceeding 2 years; and 33 for terms exceeding 2 years.

Sentences of whipping were passed on 405 persons, as against 404 in the preceding year. Fourteen of the sentences of whipping, against 6 in 1915, were not in accordance with the Whipping Act of 1909. In 11 cases, the sentences were executed.

The fines imposed aggregated Rs. 7,09,188. Rupees 6,08,381 were realised, of which Rs. 92,750 were paid as compensation to complainants.

Miscellaneous proceedings.

97. In addition to criminal trials, the following were the more important classes of work dealt with by magistrates in the mufassal :—

Code of Criminal Procedure. Chapter VIII.

98. There were 2,401 proceedings under chapter VIII, Criminal Procedure Code, to prevent a breach of the peace, in which 10,168 persons were involved. The number of cases and the persons involved were more than the number brought before the courts in 1915. Of the persons concerned 3,305 were required to execute bonds to keep the peace, in addition to the persons mentioned in the preceding paragraph as having been similarly bound down on conviction. The number of persons dealt with under this chapter was largest in Bakarganj (2,174), Faridpur (1,413), Mymensingh (1,064), Pabna (733), Dacca (626), and Khulna (523). Bakarganj has headed the list since 1913. In Jessore and Noakhali there was a large decrease in the number of proceedings of this class, while the figures show a marked increase in Faridpur and Pabna as compared with 1915. In 2,045 cases, 5,291 persons were called upon to show cause why they should not give security to be of good behaviour, and the orders were made absolute against 4,391. Of these, 4,016 failed to give the required security and were imprisoned in default, 564 after reference to the courts of session under section 123 of the Code, and 3,452 under orders of magistrates for terms not exceeding one year.

Chapters X, XII, and XXXVI.

99. Proceedings for the abatement of nuisances under chapter X of the Code were taken in 899 cases, and in the cases of 281 persons a reference was made to a jury under section 138 of the Code. The number of cases under chapter XII of the Code, involving questions of the possession of land, decided by Magistrates, was 1,287, an increase of 113 on the figures for 1915. Under section 250 of the Code, 485 complainants were ordered to pay compensation to accused persons, their accusations having been found to be frivolous or vexatious. Proceedings for maintenance under chapter XXXVI of the Code were taken against 919 persons, and orders were made absolute against 243.

Witnesses.

100. The number of witnesses examined in the courts of magistrates in the mufassal was 368,060, as compared with 375,788 in 1915. The number who attended and were discharged without examination was 1,77,800 or 32·5 per cent. of the whole number in attendance. In the preceding year, the percentage was 31·5. The amount paid to witnesses on account of the expenses of their attendance rose from Rs. 1,70,475 in 1915 to Rs. 1,74,075 in 1916. Of the total number in attendance, 399,541 (73·2 per cent.) were discharged on the first day; 104,629 (19·2 per cent.) on the second; 31,632 (5·8 per cent.) on the third; and 10,058 (1·8 per cent.) after the third day. The number of witnesses detained for more than three days was 1,005 less than in 1915. The districts in which the largest percentage of witnesses was detained for more than three days were Khulna (3·8), Rajshahi (3·7), Dacca and Faridpur (3·4). Explanations of all these detentions have been dealt with by the High Court.

II.—Courts of Sessions.

Commitments.

101. The number of cases committed for trial or referred during the year was 1,387, or 74 less than in 1915; and the number decided, including pending cases of the previous year, was 1,469, or 62 more than in 1915.

There were 172 cases pending at the close of the year. Commitments increased in 12 districts and decreased in 12, and in 2 districts the figures were the same as in the preceding year. The increase was marked in the following districts : in Faridpur from 93 to 115 ; in Rajshahi from 22 to 42 ; in Burdwan from 38 to 53 ; and in Tippera from 59 to 73. The decrease was noticeable in Bakarganj from 214 to 147 ; in Mymensingh from 171 to 144 ; in Bankura from 45 to 21 ; and in Nadia from 48 to 32. The number of commitments was, as in the previous year, largest in Bakarganj (147).

Result of trials.

102. There were 3,805 persons, or 31 more than in 1915. under trial before courts of session. The cases of 3,343 persons were decided and 451 remained under trial at the close of the year. Of the 3,343 persons tried, 2,105, or 64·6 per cent., were convicted and 1,149 were acquitted or discharged, and the cases of 89 persons were referred to the High Court under sections 307 and 374 of the Code of Criminal Procedure.

Punishments.

103. The following sentences were passed by the courts of session :—

Death	...	22
Transportation	for life ...	83
	for a term of years ...	70
Imprisonment	rigorous ...	1,363
	simple ...	15
Fine	...	72
Whipping	...	6

In the case of 6 of the persons sentenced to rigorous imprisonment, the sentences included terms of solitary confinement. Sixty-seven of the sentences of fine and three of whipping were additional punishments ; and in the case of 2 youthful offenders the sentence of imprisonment was commuted to detention in a reformatory school. Besides the above, 564 persons were sentenced to rigorous or simple imprisonment (185 for terms not exceeding one year, and 379 for terms between one year and three years) on failure to furnish security for good behaviour.

Sentences of imprisonment were passed for the following terms :—

Not exceeding	15 days ...	28
	6 months ...	121
	2 years ...	499
	7 „ ...	1,238
Exceeding 7 years	...	54

Fines to the amount of Rs. 8,971 were imposed by courts of session, as compared with Rs. 27,385 imposed in the preceding year. The total realizations of the year aggregated Rs. 4,727, as compared with Rs. 5,681 in 1915. The amount of fines realized and paid as compensation fell from Rs. 3,500 to Rs. 125.

Jury trials.

104. The number of persons tried by jury was 1,393 and of the persons so tried, the Sessions Judge approved of the verdict of the jury in respect of 1,229 persons, and disapproved of it in respect of 164. The Sessions Judge disagreed with the verdict of the jury in regard to 67 persons and referred the cases to the High Court under section 307 of the Code of Criminal Procedure. The results of these references are given under the head "Superintendence, reference and revision."

Trials with the aid of assessors.

105. The number of persons tried with the aid of assessors was 1,165. In the cases of 778 persons, the Sessions Judge concurred with the opinion of both the assessors ; in the cases of 208 he differed from the opinion of one ; and in the cases of 179 he differed from the opinion of both the assessors. The corresponding figures of 19.5 were 1,033, 685, 168 and 180, respectively.

Duration of cases.

106. The average duration of sessions trials, from the date of commitment to the date of decision, rose from 43·3 days in 1915 to 45·9 days in 1916. Notice was, as usual, taken by the High Court of all cases of unusual duration. The duration of cases was highest in the districts of Jessore (78·8), Malda (69·2), the 24-Parganas (68), Faridpur (57), Nadia (53·4), Khulna (53), and Pabna (52·8). The increase in the duration of cases from 36·1 to 48 days in Dacca, from 58·9 to 69·2 days in Malda, and from 31 to 41·1 days in Midnapore is noticeable ; there was a marked reduction from 50·3 to 36 days in Rajshahi.

Witnesses.

107. The number of witnesses in attendance before the courts of session was 26,704. Of these, 15,697 were examined and 11,007 discharged without examination. In 1915, the corresponding figures were 14,966 and 10,540, respectively. Of the total number in attendance 10,149 (38 per cent.) were discharged on the first day; 9,203 (35 per cent.) on the second day; 4,527 (17 per cent.) on the third day; and 2,825 (10 per cent.) after the third day. The proportion of witnesses discharged after the third day was smaller than in 1915 (12 per cent.). The High Court have taken due notice of cases of excessive detention of witnesses in reviewing the district reports. The amount paid to witnesses on account of the expenses incurred by them in attending sessions trials was Rs. 70,875 as compared with Rs. 72,250 in 1915.

Commitments, etc., to the High Court.

108. Three cases were pending at the opening of the year, and 66 cases were brought to trial in the High Court during the year. Of these, 64 were tried during the year, and 5 remained undecided at its close. Altogether 74 persons were tried, of whom 60 were convicted and 14 acquitted. The number of witnesses examined was 530, and the average duration of cases from commitment was 34·2 days, against 43·1 days in 1915.

APPELLATE JURISDICTION.

I.—High Court.

Appeals.

109. At the opening of 1916, 39 appeals were pending before the High Court from sentences or orders of criminal courts. During the year, 694 appeals were preferred, and 695 were decided, leaving 38 pending at its close. The number preferred and decided was 3 more and 8 less, respectively, than in the preceding year. The pending file shows a decrease of 1. Of the appeals against sentences preferred, 564 were from courts of session and 129 from courts of Presidency Magistrates. One appeal was preferred by the local Government against an order of acquittal.

Result of Appeals.

110. Five hundred and fifty-eight appeals against sentences of courts of session were decided. The orders of the lower courts were upheld in 464 instances, reversed in 28, and modified in 61. Five cases were remanded for re-trial. One hundred and thirty-five appeals from the orders of Magistrates of the Presidency town were decided, the orders being affirmed in 128 cases, and reversed in 3. Four cases were remanded for re-trial. The results of appeals decided, as affecting individuals, were that the appeals of 820 persons were summarily dismissed under section 421 of the Code of Criminal Procedure, and that in admitted appeals, sentences on 153 appellants were confirmed, on 78 reduced or altered, and on 69 annulled. In the cases of 8 a new trial or further inquiry was ordered.

Appeal against acquittal.

111. Two appeals by the local Government against orders of acquittal were decided during the year. In one, the accused person was convicted and sentenced under section 9 of the Opium Act (I of 1878) by a Subdivisional Magistrate, but was acquitted by the Sessions Judge on appeal. The High Court dismissed the appeal. In the other, the accused was convicted and sentenced by a Deputy Magistrate under section 324, Indian Penal Code. The High Court set aside the order of acquittal passed on appeal by the Sessions Judge and sentenced the accused to one year's rigorous imprisonment and a fine of Rs. 100 under the above section.

II.—Appellate Courts subordinate to the High Court.

Sessions Courts.

112. There were 198 appeals pending before the courts of session at the opening of the year. During the year, 3,472 appeals were preferred, 3,470 were decided, and 199 remained pending at its close. The remaining appeal abated on the death of the appellant. The number of appeals preferred was 14 less than in 1915. In the appeals decided, 5,709 persons were concerned. The appeals of 1,197 of these, or 20·9 per cent., were summarily dismissed; 2,224 appellants, whose appeals were admitted, were altogether unsuccessful; 942 obtained a reduction or alteration of sentence, and 1,236 were acquitted; in the cases of 107 appellants, a new trial or further inquiry was ordered. The cases of three persons were referred to the High Court.

The proportion of persons whose appeals were wholly unsuccessful, successful in obtaining a modification of the original orders, and successful in obtaining their reversal, was 59·9, 16·5 and 21·6, respectively. Of those concerned in admitted appeals only, the proportions were 49·2, 20·8 and 27·3 per cent. If admitted appeals only are considered, these results were, on the whole, more favourable to appellants than in the previous year.

Magistrates' courts.

113. In the courts of magistrates, 163 appeals were pending at the opening of the year. During the year 3,786 appeals were preferred, 3,773 were decided, and 176 remained pending at its close. The number preferred was more than in 1915 by 11. The number of persons whose appeals were decided by courts of magistrates was 6,514. Of these, the appeals of 1,582 were summarily dismissed, and the sentences on 2,674, whose appeals were admitted, were confirmed, making a total of 4,256 wholly unsuccessful appellants, or 65·3 per cent. Of the remainder, 735 appellants, or 11·2 per cent., obtained a modification of the sentences passed on them, and 1,460, or 22·4 per cent., their total annulment. In the cases of 63 appellants, a new trial or further inquiry was ordered. Compared with 1915, the results were less favourable to appellants.

SUPERINTENDENCE, REFERENCE AND REVISION.

I.—High Court.

References under section 307 of the Code of Criminal Procedure.

114. Eight references under section 307 of the Code of Criminal Procedure from verdicts of juries were pending in the High Court at the opening of the year, and 41 were made during the year. Thirty-nine of these references were decided during the year, and 10 remained undecided at its close. The result of the 39 cases disposed of was that the verdict of the jury was accepted in 12 cases, set aside in 25, and modified in 2.

References under section 374, Code of Criminal Procedure.

115. Nineteen references under section 374 of the Code of Criminal Procedure for confirmation of death sentences were made to the High Court during 1916, and 3 were pending at the opening of the year. Eighteen were decided during the year, in which 21 persons were concerned : the death sentences on 14 were confirmed, and in the cases of 5, the sentence was commuted to transportation for life. The remaining 2 persons were acquitted.

References under section 341, Code of Criminal Procedure.

116. The cases of two persons who, though not insane, could not be made to understand the proceedings, were referred for the orders of the High Court. Both were disposed of during the year. In one the conviction was approved and sentence passed by the High Court ; and in the other, the record was returned to the lower court, the reference being premature.

Revision.

117. During the year, 159 cases were reported for the orders of the High Court by Sessions Judges and District Magistrates under section 438 of the Code of Criminal Procedure, and 10 were pending at the opening of the year. Of these, 158 were decided, and 11 remained pending. The number reported was 3 less than in 1915. In 63 cases the orders sent up for revision were set aside, or the proceedings quashed, and in 17 a new trial was ordered. Sentences were reduced or altered in 25 cases and enhanced in 8. In the remaining 45 cases the High Court declined to interfere.

Under section 435 of the Code of Criminal Procedure, orders were passed in 1,092 cases, an increase of 14 on the figures of the previous year. Of these, 1,085 came before the High Court on applications made to it, and 7 were taken up by the Court on review of sessions statements or otherwise of its own motion.

Of the applications for the issue of rules, 706 were rejected. Of 379 rules issued, 132 were finally discharged ; 101 were made absolute in their entirety ; the orders complained of were modified in 61 cases and quashed in 23 ; in 62 cases a new trial was ordered.

In 4 out of the 7 cases taken up by the High Court *suo motu*, the order passed by the lower court was not disturbed ; and in 3, the sentence was reduced.

Applications for transfer.

118. Sixty-three applications under section 526 of the Code of Criminal Procedure for the transfer of cases (58 original cases and 5 appeals) from

one court or district to another were on the files; all of them were disposed of. Twenty-eight were summarily rejected. In 35 cases rules were issued with the result that transfers were granted in 23 and refused in 12 cases.

II.—Courts Subordinate to the High Court.

Sessions courts.

119. Including accused persons who themselves applied for revision of the orders passed on them in the courts of magistrates, and accused persons against whom such applications were made by complainants, the cases of 7,450 persons were decided on revision by courts of session during the year. The number was less than in 1915 by 152. The applications of 2,282 persons were rejected, and as regards 2,574, the orders of the lower court were confirmed. Orders passed in the cases of 61 persons were reversed; and in 2 instances proceedings were quashed. The cases of 229 persons were referred to the High Court, and in the cases of 2,302 persons new trials or further inquiries were ordered.

Magistrates' courts.

120. The cases of 2,606 accused persons who applied for revision, or against whom applications were made by complainants, came before District Magistrates for revision. The number was more by 470 than in 1915. Of the total, the applications of 1,052 persons were rejected, and in the cases of 679 the original sentence or order was upheld. Sentences or orders affecting 41 persons were modified, and those affecting 169 were reversed. In the cases of 57 persons proceedings were quashed, and in those of 527 new trials or further inquiries were directed. The cases of 81 persons were referred to the High Court.

III.—General.

Trials of European British subjects.

121. The cases of 37 European British subjects were decided during the year, as against 25 in the previous year. Of these, 35 were dealt with by magistrates, one by the court of session, and one by the High Court. Of these accused persons, two claimed to be tried by a mixed jury. In the cases disposed of, 18 persons were convicted and 19 acquitted. The convictions were in 9 cases for offences under special and local laws; in 5 cases for offences affecting the human body; in one case for an offence against property; in one case for an offence affecting the public health, safety, etc.; in one for false evidence and in one for criminal intimidation, etc.

The number of European British subjects tried was largest in Burdwan (11).

Results of revisional work.

122. During the year under review there was decrease, as compared with the previous year in the number of criminal cases disposed of by magistrates both in the mufassal and in the Presidency town. Magistrates disposed of less appellate and more revisional work. In the courts of session there was an increase of original and a decrease of appellate and revisional work. In the High Court, there was a slight decrease in original and appellate work, and an increase in revisional work. Nineteen persons (6 in Jessore, 4 in Jalpaiguri, 2 each in Khulna, Dacca, Pabna and Chittagong and 1 in Murshidabad) were under trial for offences against the State. Of these, 8 were convicted, 8 were acquitted and 3 remained under trial at the close of the year. During the year under review, illegal sentences of whipping were passed in 14 cases, as against 11 in 1915. The magistrates concerned have been censured.

Receipts and charges.

123. If a portion of the salaries of judicial officers calculated according to the time which their returns show them to have devoted to it, is debited, as usual, to the administration of criminal justice, the total charges for the year amounted to Rs. 26,18,769. Of this amount, Rs. 14,95,203 was for the salaries of judicial officers; Rs. 1,49,773 for fixed and temporary copying establishments; Rs. 72,435 for process-servers; Rs. 4,01,688 for other establishments; and Rs. 4,99,670 for contingencies and refunds.

The receipts amounted to Rs. 15,84,460. Of this amount, Rs. 8,07,401 was under fines; Rs. 1,60,260 under process fees; Rs. 1,72,219 under copying and comparing fees; Rs. 3,70,700 under court-fee stamp receipts other

than the above; and Rs. 73,880 were miscellaneous receipts. Compared with the figures of 1915, the receipts show an increase by over Rs. 9,000 and the charges a decrease by over Rs. 1,37,000.

CRIMINAL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

Chittagong Hill Tracts.

124. The number of cases brought to trial during 1916 in the scheduled district of the Chittagong Hill Tracts was 129. The total number of cases disposed of was 105. The number of witnesses examined was 677. The total number of persons under trial, including those awaiting trial from the previous year, was 260, of these 133 were acquitted or discharged and 73 convicted. Of the cases brought to trial, 25 were for theft, 9 for criminal trespass and 27 for offences under special and local laws. The total number of appellants and applicants for revision was 27, of whom 13 were wholly or partly successful.

Jails.

[The Report on the Administration of the Jail Department in the Presidency of Bengal for the year 1916. Statistics of British India, Part VI.—Administrative and Judicial.]

Jail population.

125. During recent years the most serious problem in connection with jail administration in Bengal had been the steady increase in the jail population. In the early part of 1916 all previous records were exceeded, with the result that the average daily population of the year was 15,546 as compared with 14,474 in 1915. After August 1916, however, the figures began to fall off, and the total number of admissions during the year was 80,828 or 973 less than in the previous year. There is, therefore, some ground for hope that high water-mark has now been reached, and that the effect of the abnormal conditions which have prevailed since the outbreak of the war is beginning to wear off.

The difficulties and dangers of overcrowding were prevented in several of the larger jails by the erection of overflow sheds which were constructed in the Presidency Jail, and the manner in which discipline was maintained was on the whole very satisfactory. In spite of the increase in the jail population the number of jail offences committed was substantially less than in the previous year.

Health and mortality of prisoners.

126. The statistics regarding sickness and mortality were slightly less favourable than those of 1915. The death-rate per mille was 22·4 as compared with a quinquennial average of 21, and the daily average number of sick prisoners was 53 per mille. There was a marked improvement in the health of the prisoners in the Dinajpur and Barisal Jails, which had caused anxiety in previous years, but high death-rates were returned from Jalpaiguri, Rangpur, Bankura and Jessore. There was considerable improvement at Rangpur after the opening of a new jail hospital. New hospitals for the Dinajpur and Jalpaiguri Jails were under construction. The scheme for converting the Berhampore Jail into a special tuberculosis jail still awaits the provision of a new Central Lunatic Asylum for the Presidency. It was, however, arranged to construct a temporary building in the garden of the Suri Jail for the treatment of tuberculous prisoners from Western Bengal.

Some interesting figures have been collected showing the progressive decline in jail mortality in Bengal during the last half-century. In 1860, the death-rate per mille was 132. In the decennial period ending with 1900, it had fallen to 32, and during the last quinquennium it was only 21. These figures afford a gratifying illustration of the success of the campaign against sickness in jails carried on by successive Inspectors-General of Prisons.

Dietary.

127. There was a further increase in the number of prisoners who voluntarily adopted the wheat-scale dietary. More than half the total number were on this scale, and in the Presidency Jail all but a few sickly men chose it.

Juvenile Jail.

128. The Juvenile Jail did good work. Systematic arrangements for the care of the boys after their release from jail however yet remain to be made.

It is under contemplation to secure the assistance of philanthropic gentlemen who will be willing to find work for the boys and to keep a friendly eye on them after their release.

Jail industries.

129. The outturn of jail manufactures was again very satisfactory. In the Presidency Jail, the outturn of gunny cloth was nearly double that of the previous year. A large quantity of cloths and bags was supplied to meet military requirements. The Midnapore Central Jail furnished the Army Department with 79,000 bandages; at Dacca, the new woollen factory, which was opened in February, was engaged throughout the year in making blankets for the Army, the total outturn being 17,242.

Useful work was also done in supplying the requirements of the jail and other departments. Thus the Presidency Jail provided overflow sheds for crowded jails, and iron work, including cots for hospitals and for the police department. The Alipore Central Jail supplied Government with printed forms. The manufactures at the Midnapore Central Jail included chaukidari and dafadari uniforms, bedsheets and *dosooti* cloth for other jails and *durries* for the police department. Rajshahi, where there is a blanket factory on a smaller scale than that at Dacca, furnished other jails with blankets.

The quality of the castor-oil produced at the Rajshahi Jail met with the approval of the Surgeon-General, and it seems likely that there may be a considerable expansion of this industry.

Warder service.

130. The increase in the warder staff and in the pay of warders and head warders, which was sanctioned by the Secretary of State during the year, was received with satisfaction and relieved the strain of overwork under which the jail staff had been labouring.

Civil Justice.

[Report on the Administration of Civil Justice in the Presidency of Bengal during the year 1916. Statistics of British India, Part VI—Administrative and Judicial.]

Judicial staff.

131. The permanent civil judicial staff employed in the presidency during 1916 consisted of 14 High Court Judges; 21 District Judges; 10 Additional District Judges; a Chief Judge and 5 Judges of the Presidency Small Cause Court; 3 Provincial Small Cause Court Judges who exercised also the powers of a Subordinate Judge; 43 Subordinate Judges and 235 Munsifs. In addition, 4 executive officers exercised the powers of a Subordinate Judge or Small Cause Court Judge, and 2 the powers of a Munsif.

The following changes in the *personnel* of the High Court took place during the year:—

The Hon'ble Mr. Justice Sharfuddin, the Hon'ble Mr. Justice Chapman and the Hon'ble Mr. Justice Mullick vacated their seats in the Calcutta High Court on the 29th February 1916, in order to join their appointments in the Patna High Court. The Hon'ble Mr. Justice Imam resigned his office with effect from the 1st March 1916. The Hon'ble Mr. Jutice Holmwood proceeded on furlough with effect from the 9th March, and retired with effect from the 1st April 1916. The Hon'ble Mr. Justice Greaves continued to act as an Additional Judge till the 1st March 1916, when he was confirmed as a Judge, *vice* the Hon'ble Mr. Justice Imam, resigned. The Hon'ble Mr. Justice Newbould continued to act as an Additional Judge till the 8th March, and then acted as a Judge till the 25th April 1916 when he was confirmed as a Judge in the vacancy caused by the retirement of the Hon'ble Mr. Justice Holmwood. Mr. Francis Reginald Roe continued to officiate as a Judge of the High Court up to the 20th January 1916, *vice* the Hon'ble Mr. Justice Teunon on leave. Mr. Richard Sheepshanks and Mr. Arthur Herbert Cuming officiated as Judges of the High Court, *vice* the Hon'ble Mr. Justice Beachcroft and the Hon'ble Mr. Justice Woodroffe, on leave from the 19th April and the 15th June, respectively, to the 3rd September 1916. Mr. Maurice Smither officiated as a Judge of the High Court, *vice* the Hon'ble Mr. Justice Digambar Chatarji on furlough from the 27th July to the 26th August 1916.

In addition to the permanent staff, the following temporary appointments in the subordidate courts were sanctioned during the year :—

The appointments of the Additional District Judges in Faridpur, Midnapore-Burdwan, Jessore-Khulna and Mymensingh were permanently sanctioned with effect from the 3rd January, the 6th and 8th March, and the 28th April, respectively. A temporary Additional District Judge was employed in Rajshahi for six weeks from the 19th June.

The appointment of the sixth Additional Judge in the Presidency Small Cause Court was permanently sanctioned with effect from the 3rd November 1916.

Temporary additional Subordinate Judges were employed at Rajshahi, Mymensingh and Chittagong from the 11th, 17th and 21st March, respectively, till the 25th September; at Noakhali from the 1st June till the end of the year, exclusive of the vacation. In addition, two Civilian Officers were employed as Subordinate Judges, *viz.*, one at Nadia from the 6th March to the 19th August, and again from the 30th November to the 22nd December; and another at Murshidabad from the 22nd December till the end of the year.

ORIGINAL JURISDICTION.

I.—High Court.

Original suits.

132. The number of civil suits pending on the original side of the High Court at the end of 1915 was 2,060, including 48 pending suits received by transfer from other courts; and the number instituted during 1916 was 1,378, including 20 suits received by transfer from other courts and 6 remanded for retrial during the year, making a total of 3,438 for disposal in 1916. Of the suits instituted during 1916, 889 were for money or moveable property, 180 were mortgage suits, and 42 were for immovable property. The value of suits for specific money claims was Rs. 1,29,67,532-10-1, as compared with Rs. 1,05,27,247-8-8 in the previous year. The number of suits decided in 1916 was 1,550, and the number left undisposed of at the end of the year was 1,888. The number of suits under trial was 172 less than at the commencement of the year. There were 938 suits pending over one year, showing a decrease of 134 on the figures of the previous year.

Of the suits decided—

399 were dismissed for default or want of prosecution; 32 were withdrawn with leave; 51 were determined by compromise; 124 were decreed on confession; 447 were decreed *ex parte*; 9 were dismissed *ex parte*; 12 were disposed of by reference to arbitration; 378 were decreed after contest; and 98 were dismissed after contest.

Prize cases.

133. At the commencement of the year, cases against 7 ships (in respect of which orders had previously been made for delivery to the Lords of the Admiralty upon their requisition) and one claim against the cargo of another were pending. No action was taken during the year in regard to any of the cases.

Cases under the extraordinary jurisdiction.

134. At the commencement of the year, seven suits were pending in the High Court in its extraordinary original civil jurisdiction, and two suits were transferred to it during the year. Two of these were disposed of during the year, and seven remained pending at its close.

Probates and letters of administration, etc.

135. During the year 432 petitions for probate and letters of administration, and 7,786 interlocutory applications (including applications for the appointment of guardians under the Guardians and Wards Act, 1890, for the appointment of guardians *ad litem*, for the appointment of receivers, for injunctions, for discovery of documents, for execution, for summonses to witnesses, for special leave to file written statements after time) were disposed of. Of the interlocutory applications, 4,391 were disposed of by the Court or by a Judge in chambers; the remainder (3,395) were disposed of by the Registrar and the Master.

References to take accounts, etc.

136. The number of references to take accounts, to make inquiries as to estates to be administered or partitioned, as to debts and incumbrances, as to

allowances to be made for maintenance, on questions of title, on questions affecting minors in proposed terms of settlement, to settle conveyances, and in like matters, pending at the commencement of the year, was 136. Fresh references were directed by the Court in 356 cases. Of the total number of references, 374 were disposed of by the Registrar, the Official Referee and Master and their assistants.

Conveyances and sureties.

137. During the year, the Registrar settled 14 conveyances and inquired into the sufficiency of sureties in 78 cases. The Registrar further inquired into the sufficiency of sureties in 133 matters in which administration bonds were executed.

Appeals from the original jurisdiction.

138. The number of appeals from the original to the appellate side of the court pending at the commencement of 1916 was 36, and 112 new appeals were preferred. Of these appeals, 12 were dismissed for default or otherwise not prosecuted, and 66 were decided; the decrees of the courts of first instance were affirmed in 37 cases, modified in 5 and reversed in 18. Six cases were remanded for retrial. Seventy appeals remained undecided at the close of the year.

References from the Calcutta Court of Small Causes.

139. At the commencement of the year one reference was pending, and none were made during the year under review. The case remained undecided at its close.

Applications for the transfer of cases from the Calcutta Court of Small Causes.

140. Twenty-five cases transferred from the Calcutta Court of Small Causes under section 39 of the Presidency Small Cause Courts Act, 1882, were pending at the commencement of the year, and during the year 14 applications under that section were made to the High Court for transfer to that court. All the applications were granted. Of the 39 cases for disposal, 3 were decreed after contest, 2 were dismissed after contest, 1 was decreed *ex parte*, and 2 were withdrawn. The remaining 31 cases were pending at the close of the year. Four cases were transferred from the Calcutta Court of Small Causes under section 24 of the Code of Civil Procedure, and 16 were pending from the previous year. Of the 20 cases for disposal, one was decreed after contest, and the others were pending at the close of the year. Sixteen applications under section 115 of the Code of Civil Procedure for the calling up of records from the Calcutta Court of Small Causes were pending at the commencement of the year and 12 such applications were made to the High Court during the year. Of these, 5 applications were refused, in 5 cases the rules issued were discharged and in 3 cases the rules issued were made absolute. Fifteen cases were pending at the close of the year.

Insolvency cases.

141. The number of cases, under the old and new Acts, pending in the Insolvency Court at the commencement of the year was 188 and 634, respectively, and the number instituted during the year was 203. Of the 1,025 cases for disposal, 243 were disposed of, the adjudication being set aside or superseded or the petition being withdrawn or dismissed in 142 cases and the insolvents obtaining relief in 101. There were also disposed of during the year 2,695 applications of a miscellaneous character.

Duration of sittings.

142. For the hearing of original suits and applications one Judge sat alone for 68 days, two Judges sat separately and simultaneously for 109 days, and three Judges sat separately and simultaneously for 37 days. The Insolvency Court engaged the time of one Judge for 22 days. Appeals from the original side occupied a bench of two Judges for 27 days, a bench of three Judges for 48 and a bench of five Judges for 3 days.

Appeals to the Privy Council.

143. Six appeals from the original side were pending from the previous year, and one was admitted during the year. Two of these appeals were disposed of during the year.

Receipts and expenditure.

144. The receipts and expenditure of the High Court during 1916 were Rs. 17,41,923-11 and Rs. 4,93,408-5-1, respectively.

Taxing Office.

145. The number of bills between party and party taxed during the year was 1,085 and of bills between attorney and client was 485.

The court-fees for taxation during the year amounted to Rs. 25,565-8-0. This sum is also included in the item "other fees realised by means of stamps".

II.—Civil Courts in the Mufassal Subordinate to the High Court.

Original suits instituted.

146. The number of suits instituted in 1916 was 710,584, an increase of 74,182 on the figures of the previous year. The increase occurred in money, rent and title suits to the extent of 12·8, 11·4 and 7·6 per cent., respectively. The number of money suits instituted was 301,655, against 267,305 in 1915.

The total value of suits instituted in 1916 amounted to Rs. 8,42,73,697, showing an increase of over Rs. 24,00,000 over the total for 1915. The increase is due to the aggregate rise in the value of money and rent suits which were larger in number than in the previous year.

Local distribution.

147. There was an increase in the number of suits instituted in 1916 in all districts with the exception of Hooghly. The increase was most marked in Faridpur, Mymensingh, Dacca and Tippera. In Faridpur, Dacca and Tippera it occurred chiefly in money suits; in Mymensingh it was conspicuous in rent suits. The largest number of suits was instituted in the district of Mymensingh (65,427), where the number of title suits (6,350) was the heaviest in the province. In no other district did the institutions reach 60,000. In Faridpur and Dacca institutions were between 50,000 and 60,000. Money suits were most numerous in Dacca (34,335). In Bakarganj, the 24-Parganas, Tippera and Midnapore institutions were between 40,000 and 50,000. Rent suits were most numerous in Bakarganj (34,199). The second place in respect of the institutions of rent suits is occupied by Mymensingh (27,682). Institutions were between 30,000 and 40,000 in the district of Rangpur, Jessore and Noakhali, and between 20,000 and 30,000 in Chittagong, Dinajpur, Pabna-Bogra, Nadia, Hooghly, Murshidabad, Rajshahi and Khulna. In Burdwan the institutions were between 15,000 and 20,000. Birbhum with 14,433 and Bankura with 12,060 show the lowest figures.

Nature of suits instituted.

148. The majority of suits instituted were as usual for small sums, as the following figures show :—

	Suits for money and movables.	Suits under the rent law.	Title and other suits.
Rs.			
Not exceeding 10	16,347	82,758	3,289
Not exceeding 50	125,307	171,559	16,164
Not exceeding 100	74,588	51,958	10,543
Not exceeding 500	79,451	35,061	25,563
Exceeding Rs. 500, or value not stated.	5,962	2,364	9,670
Total ...	301,655	343,700	65,229

In suits for money or movables 46·9 per cent., and in rent suits 73·9 per cent., were for sums of less than Rs. 50. In suits under the rent law 99 per cent. were for realisation of arrears of rent. Of the suits classified as title suits, 40·7 per cent. were mortgage suits, 41·9 per cent. were for immovable property, and 5·8 per cent. were for specific relief. The suits which come under this head represent in value more than one-third of the total litigation of the province. Of the 20 suits instituted during the year, which were valued at over a lakh, 19 were title suits and one was a money suit.

Number of suits disposed of and the results of suits decided.

149. In addition to the 710,584 suits instituted during the year and the 175,571 suits pending trial from the previous year, 10,416 suits were revived, or received on remand or review, making a total for disposal of 896,571. The number of suits disposed of was 704,338, an increase of 63,096 on the figures of 1915. Of the total disposed of, 665,914 were disposed of by Munsifs, 21,240 by Subordinate Judges, 16,688 by Small Cause Court Judges, and 496 by District and Additional Judges. The figures show an increase of disposals in the Courts of Munsifs and Subordinate Judges.

In the suits disposed of during the year, plaintiffs were unsuccessful in 124,761 cases, or 17·7 per cent., of which 93,881 were dismissed for default; in 79,317 cases, or 11·3 per cent., a compromise was effected; and plaintiffs were successful in 500,260 cases, or 71 per cent. The results are more favourable to plaintiffs than in the preceding year. Of the 134,465 suits decided on contest, 119,137, or 88·6 per cent., resulted in favour of plaintiffs, and 15,328, or 11·4 per cent., in favour of defendants.

Applications for retrial.

150. The percentage of applications for retrial to the number of cases which were dismissed for default, or in which decrees were made *ex parte*, was 4·3, the numbers being 20,406 and 469,235 respectively. The applications were successful in 9,290 cases, or 45·5 per cent.

Suits decided by Munsifs.

151. The number of suits disposed of by Munsifs rose from 604,534 to 665,914, an increase of 61,380. The average number of suits disposed of by each Munsif was 2,717, against 2,427 in 1915. Disposals under the Small Cause Court procedure formed 28·4 per cent. of the total. The number of contested suits disposed of by Munsifs was 125,805, or 18·8 per cent. of the total. The average number of contested suits decided by each Munsif was 513, against 444 in 1915. In suits under the ordinary procedure disposed of by Munsifs, the percentage of those contested was 18·7, and in suits under the Small Cause Court procedure, 19·2.

The number of cases decided by Munsifs under the ordinary procedure shows an increase of 40,776, as compared with 1915.

Suits disposedo by Subordinate Judges and by Small Cause Court Judges.

152. The number of original suits disposed of by Subordinate Judges was 21,240, an increase of 2,533 on the figures of the previous year. The increase was in cases decided both under the ordinary procedure and in the exercise of Small Cause Court powers, and was spread over both contested and uncontested suits. The number of suits decided under the ordinary procedure was 4,902, and under the Small Cause Court procedure 16,338; of these, 33·8 per cent. and 24·6 per cent., respectively, were contested. The percentage of suits decided after contest, both under the ordinary and the Small Cause Court procedures, shows a slight increase, as compared with the previous year. The provincial Small Cause Courts disposed of 16,688 original suits, of which 2,835 were contested. The latter shows a decrease of 27, as compared with the previous year.

Average duration of suits.

153. The average duration of suits (contested and uncontested) decided by the several grades of courts is given in the following statement :—

		District Judges.	Subordinate Judges.	Munsifs.	Small Cause Court Judges.
		Days.	Days.	Days.	Days.
Under ordinary procedure.	Contested ...	253	444	210	...
	Uncontested	211	267	152	...
Under Small Cause Court procedure.	Contested ...	...	84	75	105
	Uncontested	...	61	60	62

Except in contested cases decided by Munsifs both under the ordinary and Small Cause Court procedures, the results show a general and unsatisfactory increase.

Pending suits.

154. The number of suits pending at the close of the year was 1,92,275, against 1,75,571 in the previous year. The increase is chiefly due to larger institutions during the year. Of the pending cases, 3,694 had been pending for more than a year; 58,022 for more than six months, and 44,243 for more than three months. The figures show a marked improvement in the number of suits pending over one year, but an increase in the number pending for more than six and three months. Of the suits pending over one year, 1,906 were in the courts of Munsifs and 1,788 in the courts of District and Subordinate Judges, the figures showing a decrease of 1,933 and an increase of 285,

respectively, as compared with 1915. The number of suits pending over a year was largest in Mymensingh (530); Bakarganj (422); Dacca (361) and the 24-Parganas (250). As compared with the figures of the previous year, the number of year-old suits shows a decrease in Mymensingh, Bakarganj and the 24-Parganas and an increase in Dacca where the congestion was chiefly in the courts of Subordinate Judges. As usual, the delays were generally due to adjournments granted at the request of the parties. Additional assistance was given to those districts where the file appeared to be too heavy for the normal staff.

Execution proceedings.

155. There were 101,734 applications for execution of decrees pending from the previous year, and 464,680 applications were made during the year. Realization was complete in 119,137 cases and partial in 74,156. In 247,769 cases proceedings were returned as infructuous, and 115,967 remained pending at the close of the year. Execution proceedings were, as in 1915, markedly unsuccessful in Dacca, Pabna-Bogra and Tippera, the percentages of totally infructuous proceedings being 80·7, 67·4 and 65·7, respectively; in each case, however, the percentage is slightly lower than in 1915. The total amount realised in courts other than Small Cause Courts was Rs. 1,71,04,633. Debtors were imprisoned in 119 cases; movable property was sold in 10,383 and immovable property in 62,217 cases.

Miscellaneous cases.

156. The number of miscellaneous cases of a judicial nature instituted rose from 71,918 to 79,695. The number disposed of and pending also rose from 73,181 and 17,170 to 78,153 and 19,314, respectively. Of the cases disposed of, 36,431 were withdrawn, compromised or confessed; 24,264 were decided *ex parte;* and 17,458 were contested. Of the total number of applications disposed of after contest 49·8 per cent. were granted. Of the pending cases, 136 had been pending more than a year, of which the largest number was in Mymensingh (24).

The miscellaneous cases of a non-judicial nature instituted were 7,777 in number, showing a decrease of 618. Of these, about two-thirds were applications for the deposit of rent. Disposals numbered 7,912, and the pending file fell from 937 to 823. The number of applications for the deposit of rent was highest in Hooghly (769) followed by Bakarganj (585), the 24-Parganas (515), Rajshahi (492) and Midnapore (441).

III.—Calcutta Small Cause Court.

No. of suits.

157. The number of suits instituted and decided in the Presidency Court of Small Causes during 1916, and the number pending at its close, were 25,075, 26,464 and 3,923, respectively. Institutions and disposals show a decrease of 1,496 and 1,733, respectively, while the number pending was more than in 1915 by 570. Sixty-one applications were filed under section 626 of the Calcutta Municipal Act (Bengal Act III of 1899). The decrease in institutions was chiefly in suits valued at sums not exceeding Rs. 50 (9·6 per cent). The total value of the litigation was Rs. 55,32,375, as against Rs. 55,37,723 in the preceding year. The average duration of contested and uncontested suits was 63·5 and 42·1 days, respectively. The figures for 1915 were 62·7 and 38·8, respectively.

Mode of disposal.

158. Of the 26,464 suits disposed of, 1,760 were dismissed for default or want of prosecution, or were withdrawn with leave, 20,366 were decided without contest in the manner shown in the margin, 4,324 were decided after contest or upon reference to arbitration, and in 14 the plaint was either rejected or returned.

Compromised	...	6,641
Decreed on confession	...	4,488
Decreed *ex parte*	...	9,156
Dismissed *ex parte*	...	81
TOTAL	...	20,366

APPELLATE JURISDICTION.

I—High Court.

Appeals under the Letters Patent.

159. One hundred and twelve appeals from decisions on the original side were filed during the year, and 36 were pending at its commencement. Of the total, 78 were decided and 70 remained pending at the close of the

year. The number of appeals disposed of was 43 less than in 1915. On the appellate side, 262 such appeals were filed during the year, and 139 were pending at its commencement. Of these, 163 were decided, and 238 remained pending at the close of the year.

II.—Appeals from the Subordinate Civil Courts.

Appeals to the High Court from subordinate courts.

160. The statement in the margin shows the number of first and second appeals from the decrees and orders of the provincial courts as courts of original and appellate jurisdiction, respectively, which came before the High Court and were decided during the year. The figures include appeals from the courts of Assam. The institutions of first appeals from decrees and of second appeals from orders were, respectively, 16 and 10 less than in 1915. The number of first appeals from orders and of second appeals from decrees, on the other hand, was more by 83 and 164, respectively, than in the preceding year.

	Pending at the end of 1915.	Preferred.	Decided.	Pending at the end of 1916.
First Appeals.				
From decrees	977	304	499	782
From orders	593	258	450	401
Second Appeals.				
From decrees	4,401	2,711	2,793	4,319
From orders	193	108	240	61
Total ...	6,164	3,381	3,982	5,563

Appeals pending.

161. At the close of the year, 1,183 first appeals were pending, of which 782 were from decrees and 401 from orders; and 4,380 second appeals, of which 4,319 were from decrees. The total is less than the number pending at the close of 1915 by 601.

Result of appeals.

162. Of the 499 appeals from original decrees decided, 113 were uncontested, being dismissed on default, withdrawn or compromised. The result of the appeals decided after contest was that the decrees of the lower courts were confirmed in 255 cases, reversed in 70, and varied in 40, while 21 cases were remanded. Of the 2,793 appeals from appellate decrees decided, 140 were uncontested, and 941 were dealt with under Order XLI, rule 11, of the Civil Procedure Code. One thousand seven hundred and twelve were heard and determined, with the result that 1,283 decrees of the lower courts were affirmed, 190 reversed, and 43 varied, while 196 cases were remanded. Of the 690 appeals from orders decided, 120 were uncontested, 150 were dealt with under Order XLI, rule 11, of the Civil Procedure Code, and 420 were decided after trial with the result that 276 orders of the lower courts were affirmed, 68 reversed and 14 varied, 62 cases being remanded. The following table shows the results of appeals decided by the High Court as affecting District Judges and Subordinate Judges :—

	Affirmed.		Modified or Reversed.	
	District Judges.	Subordinate Judges.	District Judges.	Subordinate Judges.
Appeals from original decrees ...	99	156	35	75
Appeals from appellate „ ...	766	517	76	157
Miscellaneous appeals ...	132	144	42	40

Appeals to the Privy Council (including appeals from Bihar and Orissa over which this Court continued to exercise jurisdiction in pursuance of the Letters Patent of 1916, establishing a High Court at Patna.)

163. At the opening of the year 87 appeals to the Privy Council were under preparation for despatch to England and 162 were pending for orders. Eighty-one new appeals were filed during the year. Of the total for disposal, 37 were struck off or compromised, 51 were despatched to England, and 242 appeals were pending at the close of the year—3 of 1913, 128 of 1914, 44 of 1915 and 67 of 1916. Of the pending appeals 95, including 60 from Bihar and Orissa, were under preparation for despatch to England at the close of the year.

Results of appeals to the Privy Council.

164. The results of 13 appeals to the Privy Council were received during the year. The decisions of the High Court were affirmed in 7 instances, reversed in 4 and varied in one; one appeal was remanded.

III.—Appellate Courts Subordinate to the High Court.

Appeals instituted.

165. Fifteen thousand seven hundred and sixteen appeals were instituted in 1916, a decrease, as compared with the previous year, of 1,586. The decrease in appellate work contrasts with the large increase in the number of suits disposed of by the subordinate courts. Of the appeals instituted, 7,234 were in title suits, 6,222 in rent-suits, and 2,260 in suits for money or movables. The numbers show a decrease in appeals in rent and title suits but an increase in appeals in suits for money and moveables. The number of appeals valued at sums below Rs. 10 and between Rs. 10 and Rs. 50 was 1,668 and 5,274, respectively. The total value of the appeals instituted in the subordinate courts was Rs. 27,94,915, being less than the total of 1915 by over one lakh and seventy-eight thousand rupees. The number of cases in which an appeal lay, decided by subordinate courts, was 83,085, and the proportion of appeals instituted to appealable decisions, excluding appeals from decisions of revenue officers, was 18·6 per cent., as against 21·3 in 1915. The highest percentages were 40·1 in Burdwan, 28 in Chittagong, 25 in Khulna, 23·1 in Hooghly, 22·9 in Jessore, and 21·6 in Dacca, and the lowest were in Faridpur (10), Dinajpur (11·5), and Rangpur (11·8). The number of appeals instituted was smaller than in the previous year in 14 districts and larger in 7. The largest decreases were in Faridpur (650), Nadia (443), the 24-Parganas (220), Dinajpur (170), Tippera (151), Jessore (125), Hooghly and Pabna-Bogra (123 each); while the noticeable increases were in Burdwan (222), Bakarganj (172), and Chittagong (126). In the remaining districts the variations were less than 100.

Appeals disposed of.

166. The number of appeals decided (16,775) was less by 839 than in 1915. In the courts of District and Additional Judges disposals decreased by 360, and in those of Subordinate Judges by 479. The number of appeals disposed of after contest (13,720) was 561 less than in 1915. The decrease in disposals was spread over 14 districts and was greatest in Midnapore (280), Nadia (271), Dinajpur and Rangpur (240 each). The falling off in disposals in Midnapore is due to the fact that a large number of settlement appeals was decided in that district in the previous year. In Nadia and Dinajpur the result appears to be accounted for by the fact that the Subordinate Judges devoted a greater portion of their time to original work. In Rangpur certain old and hotly contested title appeals occupied the time of the court for a considerable period. The explanations given, where there has been a decline in disposals, have been considered by the High Court in reviewing the district reports. There were noticeable increases, on the other hand, in Mymensingh (803), Faridpur (134) and Khulna (119). The increase in Mymensingh was due to an Additional District Judge being permanently added to the district during the year. In Faridpur it was due to greater measure of temporary assistance given during the year. In Khulna the result was chiefly due to the District Judge being able to devote more time to civil work than in the previous year.

Appeals pending.

167. There were 16,452 appeals pending at the close of the year, the number being 555 less than at the end of 1915. The number of appeals

pending for more than one year increased from 2,426 to 2,917. The number was largest in Nadia (481), where assistance has been given to the staff.

Result of appeals.

168. The result on the decision of the lower courts of the appeals decided during the year was as follows :—In 8,945 cases, or 53·3 per cent. of the whole, the judgment of the lower court was affirmed ; in 2,076 cases, or 12·4 per cent., it was modified ; and in 2,735 cases, or 16·3 per cent., it was reversed. Six hundred and eighty-three appeals, or 4·1 per cent., were remanded, and 2,336, or 13·9 per cent. were either not prosecuted or dismissed for default. The results are more favourable to the lower courts than in the preceding year.

General.

169. There was again a large increase in the number of original suits instituted in the mufassal courts. The disposals, though in excess of the number of the previous year, failed to keep pace with the institutions, and there was thus a considerable increase in the pending file. There was, however, an appreciable reduction in the number of suits pending over one year in the courts of Munsifs. The appellate outturn, though smaller than in the previous year, exceeded the institutions. with the result that there was an appreciable reduction in the pending file. The number of appeals pending over one year, however, increased. The position in this respect and in regard to the steady rise in year old suits before the superior courts is far from satisfactory. The matter is engaging the attention of the High Court. On the appellate side of the High Court both institutions and disposals increased, and there was a noticeable reduction in the arrears.

Inspection.

170. The courts of 14 Subordinate and Small Cause Court Judges and 92 Munsifs were inspected by District and Additional District Judges.

Receipts and charges of the civil courts.

171. The receipts of the civil courts in Bengal and of the High Court amounted to Rs. 1,50,48,365 and the charges to Rs. 58,10,457. Including the amount realised on account of duty* on probates, etc., there was a profit to the Government from civil litigation of Rs. 92,37,908, and excluding the item referred to the surplus amounted to Rs. 80,64,415. No comparison is possible with the figures of the previous year, as a separate account was not kept of the receipts and charges in the High Court in respect of Bihar and Orissa.

	Rs.
In the High Court ...	8,65,917 (a)
In other courts ...	3,07,576 (a)
TOTAL ...	11,73,493

(a) The figures are for the financial year 1916-17.

CIVIL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

Chittagong Hill Tracts.

172. The total number of suits instituted during 1916 in the Civil Courts in the scheduled district of the Chittagong Hill Tracts was 481. Of these suits 478 were for money or movable property. The total number of civil suits for disposal was 544. Of these suits, 49 were contested and 166 were disposed of without trial. The number pending at the end of the year was 90. The number of miscellaneous cases was 2,512. Of these 1,460 were decreed *ex parte* and 719 were pending at the close of the year. The total number of appeals from decrees was 30 and the number disposed of was 28. Six miscellaneous appeals were preferred of which one only remained pending at the end of the year. Eight hundred and seventy-three applications were made for execution of decrees of which 244 were pending at the end of the year.

Registration.

[Triennial Report on the administration of the Registration Department for the years 1914, 1915 and 1916. Statistics of British India, Part II—Commercial ; Part VI—Administrative and Judicial.]

Progress.

173. Financial conditions due to the war have retarded the progress of the department. Schemes for the opening of new offices were curtailed, and the building programme prepared with a view to improving the notoriously bad condition of rural offices had to be abandoned ; while the scheme, sanctioned by the Secretary of State, for the revision of ministerial establishments both at District headquarters and at rural offices could not be introduced.

A fourth Inspector was sanctioned and the pay of each of the four Inspectors was fixed at Rs. 300—20—400. The pensions earned by officers who entered pensionable service at the time of the reorganisation of the Registration Department in 1905, at ages over 30, used to be reduced under note (1) to Article 478 (*a*) of the Civil Service Regulations ; this disability has recently been removed with the sanction of the Secretary of State. The rules for the recruitment of Sub-Registrars sanctioned in the previous triennium did not work well, and revised rules have been introduced, under which recruitment is made once a year chiefly on nominations made by the Commissioners of Divisions and the Inspector-General of Registration, a fixed percentage of the posts being retained for direct appointment by Government. The revision of the Bengal Registration Manual was taken in hand, and revised rules under section 69 of the Registration Act were issued. The important question of keeping within manageable limits the ever-increasing mass of registration records is now under the consideration of Government.

Statistics.

174. The ordinary work of the department has considerably increased. The number of offices has risen from 392 to 403. Compulsory registrations affecting immovable property increased by 13 per cent. and optional registrations of the same kind by 16 per cent. The total number of registrations under all heads was 4,913,810 as compared with 4,394,921 in the preceding triennium, showing an increase of 11·8 per cent. The total additional 2 per cent. stamp duty levied on the certificates of sale of immovable properties situated in the Calcutta Municipality in accordance with the rules framed under section 86 of the Calcutta Improvement Act amounted to Rs. 9,38,338 against Rs. 4,46,434 realized in the previous triennium. As compared with the previous triennium, the receipts increased by 11·4 per cent., the expenditure by 7·1 per cent., and the surplus by 16·7 per cent.

Brief summary of results.

175. The increase in registration transactions is shared by all the Divisions. Prosperity and adversity both tend to increase the number of registrations, and the causes of fluctuations are in many instances obscure. The general decline in the number of registrations in Eastern Bengal accompanying the sudden fall in the price of jute at the outbreak of the war, and the decline in Tippera district in 1915, when there were serious floods, are attributable to the fact that small money-lenders had little money to advance in those periods because they had not recovered their previous loans.

WORKING OF THE MARRIAGE ACT III OF 1872.

Working of the Marriage Act III of 1872.

176. Forty-four marriages were registered during the calendar year 1916 under the Marriage Act III of 1872 against 35 in 1915. Out of these 30 were registered in Calcutta, 4 in Dacca, 3 in Mymensingh, 2 in Howrah, 2 in Dinajpur and 1 each in Khulna, Hooghly and Chittagong. Of the 48 Marriage Registrars under the Act, only 10 Marriage Registrars and 3 *ex officio* Marriage Registrars registered marriages during the year. The ages of the bridegrooms ranged from 21 years to 49 years and those of the brides from 14 to 28 years. Five widows of ages ranging from 15 to 27 years were remarried.

Working of the Muhammadan Marriage Registration Act and the Kazi's Act.

177. Bengal Act I of 1876 (an Act for the Voluntary Registration of Muhammadan Marriages and Divorces) was in force throughout the Province. There were 276 Registration offices at the end of the calendar year 1916 against 277 in the previous year. Two offices in the district of Malda and one in the district of Murshidabad were abolished during the year and their jurisdictions were amalgamated with those of other offices in the districts. Two new offices were opened, one in the district of Darjeeling and the other in the district of Faridpur. There were registrations in 268 offices, and no work was done in the remaining 8 offices. The total number of ceremonies registered increased by 14·7 per cent. as compared with the previous year, the figures being 64,991 and 56,644, respectively. The increase mainly occurred in the Dacca and Rajshahi Divisions. The total receipts of the Muhammadan Marriage Registrars and Kazis, including gratuities, amounted to Rs. 1,32,906 against Rs. 1,13,891 in the previous year, showing an increase of 16·6 per cent.

Working of the Indian Companies Act, 1913 (VII of 1913).

178. The number of registered companies at the close of the year was 1,075 with a nominal capital of Rs. 1,06,35,84,540 and a paid-up capital of Rs. 37,07,03,307. These figures show a further increase over those of the previous year when there were 1,023 companies with Rs. 98,75,79,000 nominal and Rs. 33,12,56,137 paid-up capital. One hundred and fourteen new companies were registered during the year against 86 in 1915-16. Of these 97 were limited by shares, 1 by guarantee and 16 were registered under the Societies Registration Act, 1860 (XXI of 1860). Two hundred and thirty-four companies increased and 37 reduced their capital, the corresponding figures of 1915-16 being 229 and 4. Forty-four companies having ceased to work, went into liquidation, against 17 in the previous year. Of these 20 were Provident Insurance Societies registered under the Indian Companies Act, 1913, as well as under the Provident Insurance Societies Act, 1912. The total amount of fees realised from all sources amounted to Rs. 41,899-2, an increase of Rs. 6,051-7 over the figures of the previous year.

Three new auditors' certificates were issued under the provisions of section 144 (2) of the Act thus raising the total number of certificates in force to 31. The holders of 12 of these certificates are entitled to undertake audits throughout British India, while the holders of the remaining 19 are limited to operations within this Presidency.

Many companies are still very reluctant to comply with the provisions of the Act. Sixty-two prosecutions were conducted during the year, of which 30 ended in conviction, 1 in discharge, 6 were withdrawn and 25 remained pending at the end of the year.

Working of the Provident Insurance Societies Act, 1912 (V of 1912).

179. No new societies were registered during the year. Eighty-five societies were on the register at the beginning of 1916-17, but the close of the year found 20 defunct and 21 in the course of liquidation.

Municipal Department and Local Self-Government.

MUNICIPALITIES OUTSIDE CALCUTTA.

[Reports from the Commissioners of Divisions on the working of municipalities in the Bengal Presidency (except Calcutta) during the year 1916-17. Statistics of British India, Part VIII—Local Funds.]

Number of municipalities and rate payers.

180. The number of municipalities increased from 112 to 113 in consequence of the partition of South Barrackpore into the two separate municipalities of Barrackpore and South Barrackpore. The number of rate-payers increased from 317,722 to 321,099, or 16·3 per cent. of the total population within municipal limits.

Elections.

181. Thirteen general elections were held during the year, of which five were followed by litigation in the courts or successful objections before the Magistrate. Three were held in towns of which the Commissioners had hitherto been appointed by Government, viz., Jhalakati, Pirojpur and Darjeeling; in the town last named there was no poll in six out of ten wards. Seven took place in the Presidency Division, where the number of voters who appeared at the polling stations was under one-third of the rate-payers. The Commissioners of one municipality in which it had been decided last year that the elective system should be introduced strongly objected to the system as unsuited to local conditions. Eleven municipalities were removed from Schedule II of the Bengal Municipal Act, *i.e.*, they were given the right to elect their own Chairmen. Two in Bakarganj and one in Bankura preferred not to exercise this right and moved Government to appoint an official Chairman. The election of one Chairman was set aside by Government owing to irregularities of procedure.

Assessment and taxation.

182. A water-rate was levied for the first time in Bankura and Chittagong and the introduction of a tax on holdings instead of a tax on persons was sanctioned in Naihati. The average incidence of taxation per head of population rose from Rs. 2-3-10 to Rs. 2-5-4. It remained highest in Darjeeling (Rs. 8-10), and in the plains varied from Rs. 6-12 in Cossipore-Chitpur to such low rates as 4 annas 8 pies in Baduria and 5 annas 10 pies in Ramjibanpur.

Revision of assessment.

183. A general revision of assessment, which in the reports is often not easily distinguishable from partial revision, appears to have taken place in 23 municipalities. In order to finance a water-works scheme the Commissioners of Mymensingh raised the rate of the personal tax from 12 annas to one rupee, thereby securing an additional income of Rs. 7,386 per annum. An initial increase of over Rs. 7,000 expected by the Pabna municipality in consequence of reassessment was dependent at the end of the year on the results of numerous appeals.

Collections.

184. The total collections, which have risen steadily in recent years, amounted to Rs. 45,04,800, the percentage on the current demand being 96·3. These results are satisfactory, showing as they do a general effort on the part of municipal bodies to make the most of their assessments. Twenty-five municipalities realized arrears sufficient to raise the collections above the current demand. Garulia and Nalchiti opened the year without arrears and realized every rupee of their demand, while twenty-two other municipalities realized over 99 per cent. of the current demand. On the other hand, the percentage was under 85 per cent. in Barisal and Tollyganj among municipalities having a demand of over Rs. 10,000 and in Halishahar, Bansberia, Baduria and Chakdah among the smaller municipalities.

Remissions fell from Rs. 1,80,578 to Rs. 1.61,525, or 3·4 per cent. of the current demand. Debhatta, which was noticed in the resolution of last year as having failed to collect its rates owing to internal dissension, signalized itself by remitting one-fifth of its current demand. The proportion of the remissions made by two other small municipalities, viz., Bansberia (22 per cent.) and Taki (27 per cent.) was still higher, but otherwise there was a general improvement, no other municipality remitting as much as 10 per cent., while only six remitted more than 7 per cent.

There was a further small increase in outstanding balances, which were unduly large in Burdwan, Hooghly-Chinsura, Serampore, Maniktala, Mymensingh, Barisal and Rampur-Boalia. In Cossipore-Chitpur, South Dum-Dum and Rangpur they were again swelled by unsatisfied claims against public bodies, the municipality first named being engaged in litigation with the Corporation of Calcutta about taxes which have been unpaid for four years. The Burdwan Municipality is conspicuous, for the third year in succession, for its failure to reduce arrears, which at the close of the year amounted to Rs. 32,889. This unfavourable result is attributed to laxity of administration.

Income and expenditure.

185. The opening balances amounted to Rs. 16,59,012, and the income, exclusive of balances, aggregated Rs. 56,92,488 compared with Rs. 54,06,316 during the previous year. The total expenditure amounted to Rs. 57,25,203 and the closing balance was reduced to Rs. 15,83,492, including a sum of Rs. 1,90,809 held in deposit. Apart from deposits the actual balances were reduced by approximately Rs. 67,000 during the year.

INCOME.

Revenue.

186. The increase in revenue was due principally to an increase of approximately two lakhs in receipts from municipal taxation, to which all but one of the different rates and taxes contributed. The variations in the receipts of individual municipalities under the several heads of income are normal and of no general interest.

Grants and contributions.

187. There was an increase of Rs. 41,287 under this head. Government grants amounted to Rs. 1,86,234, of which Rs. 42,186 consisted of contributions for educational purposes. The municipalities of Midnapore, Chittagong and Dacca received grants amounting in each case to more than Rs. 10,000, which were chiefly intended for educational and sanitary charges of a recurring nature. The only large capital grant made by Government was that of Rs. 36,800 given to the Garden Reach municipality to help to meet the cost of a drainage scheme.

The total amount of private contributions was reduced by the exclusion of class IIIA dispensary accounts from the municipal returns for West Bengal. The following instances of private liberality deserve special mention. Messrs. Bird & Co. and Messrs. Andrew, Yule & Co. made a grant of Rs. 11,429 to

the Garden Reach municipality towards the improvement of the drainage system. Babu Surja Kanta Roy Choudhury gave Rs. 10,000 to the Taki municipality for the construction of a municipal bazar; Raja Jogendra Narayan Ray Bahadur of Lalgola contributed Rs. 4,521 to the Berhampore municipality for the metalling of a road.

EXPENDITURE.

Expenditure.

188. The outstanding features in the municipal expenditure during the year are a decrease of nearly 2½ lakhs in the amount spent under the head "Public Health and Convenience" which was due to a necessary reduction in expenditure on new water-works, and an increase of a little under 1½ lakhs in the cost of administration, which, as shown below, is more apparent than real.

General administration and collection charges.

189. The total under this head includes expenditure of Rs. 49,347 on the survey of the Howrah municipality and Rs. 94,794 refunded to Government by the Narayanganj municipality, being the balance of a Government grant not required for immediate disbursement. If the last figure is left out of account, the actual increase is reduced to Rs. 36,143. The net percentage of the cost of administration on the total expenditure rose from 8·1 to 8·6, the proportion varying from 4·4 in Bhadreswar and 5·4 in Burdwan to the high figure of 22·4 in Gobardanga and 20·4 in North Dum-Dum.

Fire prevention and control.

190. The towns of Howrah, Cossipore-Chitpur, Maniktala, Garden Reach and Darjeeling spent Rs 78,762 on fire brigades. The aggregate expenditure of the other 108 towns amounted to Rs. 1,415, representing an average of only Rs. 13 a town.

Lighting.

191. An increrse of Rs. 61,926 was due chiefly to the increase in the cost of oil and materials and in a minor degree to the extension of the existing lighting system. Of the total expenditure Howrah and Darjeeling are responsible for Rs. 1,87,000, and the fact that in spite of high prices the remaining 111 towns spent between them not more than 2½ lakhs for the lighting of their streets throughout the year shows that there is little tendency to extravagance in this direction. Debhatta and the three Barrackpore municipalities spent nothing on street lighting.

Water-supply.

192. The outlay on capital works was reduced by Rs. 2,86,372 owing to the difficulty of obtaining materials for new water-works and to the financial stringency which compelled Government to curtail grants and loans. The Chittagong water-works were completed during the year and formally opened by His Excellency Lord Carmichael in July 1916. The only other important original works carried out were the extension of the Howrah water-works (Rs. 1,23,248), the improvement of the Berhampore water-works (Rs. 22,983), and the construction of water-works at Uttarpara, with which a beginning was made during the year. The Narayanganj water-works scheme, for which a grant had been made by Government, was postponed, and no progress could be made with schemes for the improvement of the water-supply in the town of Dacca and for the construction of water-works at Nator and Satkhira owing to want of funds and to the increase of cost due to the rise both of the price of materials and of the rate of interest charged for Government loans. Schemes for the supply of water to the towns of Pabna (Rs. 1,65,000) and Krishnagar (Rs. 3,07,930) received the administrative approval of Government.

It cannot be said that municipalities are at present very successful in their management of water-works. In particular, there is a strong tendency in the majority of municipalities having water-works to evade the statutory rule requiring connections with private holdings to be fitted with a meter. In Hooghly-Chinsurah, for instance, in which this rule is in force, only 44 out of 384 private connections were metered at the close of the year. The management of several water-works has, moreover, been found to be unsound from an engineering and financial point of view. The Berhampore water-works were on the verge of a breakdown in the latter part of 1916; in Burdwan owing to the lavish grant of house connections without meters and the prodigious waste of water the engines are being over-worked and are

in imminent danger of breaking down. Unchecked waste goes on in Hooghly-Chinsurah municipality and there is a constant danger of the works stopping for want of coal: not only is the stock of coal inadequate—on one occasion fire-wood has had to be burnt to keep up the water-supply—but the quality is so bad that the consumption is 50 per cent. above the ordinary amount. The success of the Chittagong water-works has been imperilled at the outset by the reluctance of the Commissioners to make adequate provision for supervision by a qualified engineer. Cases such as these illustrate the need for Government having authority, similar to that possessed by the English Local Government Board, to take over temporarily the administration of any particular department in which there is such gross maladministration that the interests of the general body of rate-payers are seriously prejudiced.

Drainage.

193. The financial conditions of the year proved as great an obstacle to progress with drainage schemes as with schemes of water-supply. Drainage schemes were, however, completed in Burdwan and Katwa; over half a lakh was spent on the drainage of Garden Reach; work was in progress on projects designed for Howrah, Bhadreswar, Bhatpara and Tangail; a special drainage scheme was started in Jangipur at the cost of Government as an experiment in anti-malarial measures; and a drainage scheme for Krishnagar received the administrative approval of Government.

Conservancy.

194. An important sewerage scheme, the cost of which is estimated at Rs. 80,600, was prepared for Kurseong and received administrative approval.

Sanitary officers.

195. At the end of the year under review there were still several municipalities which had not fulfilled their statutory obligation in regard to the employment of a sanitary staff. At least seven municipalities, which are required to employ a health officer, were without this official, and there were also vacancies in the posts of Sanitary Inspectors. The latter seem to have been due to want of qualified candidates rather than of efforts to find them, and it appears that reasonable though somewhat slow progress is being made towards complying with the law.

Hospitals and Dispensaries.

196. A decrease of Rs. 50,918 under this head was due principally to the exclusion from the returns for West Bengal of the accounts of class IIIA Dispensaries, which have an independent account at the treasury. Improvements were carried out at Burdwan, Rampur-Boalia and Kurseong, but no change of any importance is reported in the administration of municipal or aided dispensaries.

Registration of births and deaths.

197. An examination was made during the year of the arrangements for the registration of vital statistics, and the system was found to be defective in many municipalities. Local officers were directed to examine the existing organization and Government impressed on municipalities their responsibility for enforcing the provisions of the law.

Public Works.

198. A decrease of expenditure amounting to Rs. 17,000 was the result of a reduction of Rs. 35,000 in the amount spent on roads set off against an increase of Rs. 19,000 in the cost of establishment. Both are largely due to the disproportionate influence of the figures for Howrah on the provincial totals, but the same tendency is observable in the case of other municipalities and is a distinctly unsatisfactory symptom. The percentage of outlay on public works to the total expenditure ranged in the smaller towns from 58·6 in Taki to 1·4 in Birnagar and, in municipalities with an expenditure of over Rs. 10,000, from 45·3 in the South Suburban municipality to 4·5 in Suri.

Public Instruction.

199. There was a further increase of Rs. 26,819 in educational expenditure, of which approximately Rs. 22,000 was on account of primary education. As the Government grants exceeded those for the previous year by only Rs. 11,000, it may be deduced that a small but genuine attempt has been made by municipalities to make further use of their resources for the expansion of primary education. The fact remains, however, that the total expenditure on primary schools (Rs. 1,10,561) is less than half the whole amount spent by municipalities on education; and it is obvious that the principle laid down by the Government of India in reviewing the recommendations of the Decentralization Commission as regards the relation of local bodies to education, that expenditure on secondary education should not be incurred by municipalities until the requirements of primary education

are fully met, is far from being realized in this province. Municipalities are not required to expend any fixed proportion of their income on primary education, but for practical purposes 3·2 per cent. of the ordinary municipal income, which some years ago was estimated as the cost of providing for the elementary instruction of half the boys of school-going age, is taken as a suitable standard by which to judge of the adequacy of the provision made for the purpose. Twenty-five municipalities in the whole province failed to attain this very moderate standard during the year under review. On the other hand, 42 municipalities, as against 22 in the previous year, spent more than 5 per cent. of their income on primary schools. An extreme case of default is that of the Burdwan municipality, which spent only Rs. 591 or one-half per cent. of its total ordinary income on primary education as against Rs. 22,090 on secondary education. Practically the whole of this latter sum was spent on the municipal high school, and even when allowance is made for the fact that close on Rs. 19,000 was recovered in fees, it is clear that this institution is consuming funds which should properly be devoted to the primary education of the poorer classes. In this and a few other cases, however, the arrangements under which Municipal Commissioners are responsible for the management of secondary institutions are of long standing.

Loans.

200. Forty municipalities were in debt to Government at the end of the year, their total liability amounting to Rs. 43,49,725, in addition to a sum of Rs. 1,200 outstanding against the Bally municipality for a loan taken from other sources. The largest outstanding liabilities were those of Howrah (Rs. 23,24,562), Darjeeling (Rs. 7,09,753), Dacca (Rs. 2,56,601), Chittagong (Rs. 1,47,517) and Narayanganj (Rs. 1,17,294). Four municipalities took loans during the year, viz., Chittagong (Rs. 40,000 for water-works), Katwa (Rs. 15,000 for drainage), Garden Reach (Rs. 10,000 for drainage) and Sherpur in Bogra (Rs. 1,500 for road repairs). The Burdwan municipality liquidated its loans during the year.

Closing balances.

201. The closing balances of the municipalities tend, as usual, to be either unaccountably large or disproportionately small rather than to average an equable percentage on the expenditure of the year. Even when allowance is made for the accumulation of funds in certain towns for large schemes, balances amounting to approximately one quarter of the total expenditure at the close of a year in which few large Government grants were received must be regarded as excessive. Three municipalities had actual closing balances of over a lakh, viz., Dacca (Rs. 1,26,091), Howrah (Rs. 1,22,295) and Darjeeling (Rs. 1,00,373). Six municipalities closed the year with an actual balance of less than 5 per cent. on current expenditure, an extreme case being that of Burdwan, in which the expenditure for the year was Rs. 1,69,000 and the balance was under Rs. 2,000.

Seventy-nine municipalities had outstanding liabilities on account of current bills aggregating Rs. 2,33,369 and in nine municipalities, as against sixteen in the previous year, the outstanding liabilities exceeded the closing balance. Pabna, which opened the year with a net deficit of Rs. 3,825, was in a still worse position at its close, having a balance of Rs. 1,702 against liabilities of Rs. 5,621. Serampore had outstanding liabilities of Rs. 48,062, or more than half its current demand, against an actual balance of Rs. 6,451.

Audit of accounts and embezzlements.

202. No very serious case of embezzlement was discovered during the year, the worst being the misappropriation of Rs. 389 by a collecting sarkar in Panihati, which is reported to have been facilitated by the neglect of the Vice-Chairman. Embezzlements of smaller amounts by the collecting staff came to light in Maniktala, Narayanganj and Rangpur. The Commissioners of the Presidency and Dacca Divisions report favourably on the use made by the municipalities of the greater freedom allowed them in the preparation of their budgets under the orders issued in January 1916.

Howrah.

203. A general election in the Howrah municipality was held in December 1915, and the new municipal Committee took office at the beginning of the year under review with an elected non-official chairman for the first time.

The total ordinary income rose from Rs. 10,83,028 to Rs. 11,01,398, while the total ordinary expenditure fell from Rs. 12,06,621 to Rs. 11,42,517. The

current demand on account of taxes rose from Rs. 9,95,275 to Rs. 10,05,543, and the total demand, including arrears, amounted to Rs. 10,42,047, of which Rs. 9,62,645 or 92·4 per cent. was collected against 92·5 in the previous year. The outstanding liabilities at the end of the year amounted to Rs. 13,697 against an actual closing balance of Rs. 1,22,295. The financial position of the municipality is not such as to allow of much expansion of its activities. Further construction work on the water-works improvement scheme was prevented by want of funds, as Government were unable to hold that the financial prospects of the municipality towards the end of the year were such as to justify the grant of a loan of Rs. 1,00,000. Expenditure on water-supply, excluding the amount spent from loan funds, consequently fell from 23·4 per cent. of the total expenditure to 2·5 per cent. Progress was made with work on the Bhatpara drainage scheme. Expenditure on the maintenance of roads (Rs. 54,800) was less than half the amount estimated by the Chairman to be necessary for their proper upkeep. Expenditure on primary education was only 2·3 per cent. of the municipal income. The conservancy service proceeded on the usual lines, no capital improvements being effected and it is reported that the Nandibagan trenching ground, which is in the middle of the town, remained a crying scandal. Interesting possibilities were suggested in the discussion by the Calcutta Improvement Trust of the question of extending the operations of the Trust to Howrah. The Board of Trustees decided by a small majority against making any recommendation to Government in favour of the course. The views of the Commissioners of Howrah on the subject were invited by Government, and they were unanimously in support of the extension of the Calcutta Improvement Act to the town.

Administration.

204. The year under review witnessed the first results of the measures taken, in accordance with the resolution of the Government of India of April 1915 on local self-government, to increase the financial responsibilities of Municipal Commissioners, extend the elective system and relax official control. It is gratifying to find that the results are favourably commented on by Commissioners in reviewing the working of the year. At the same time the chronic evils of faction, lack of executive vigour and reluctance to impose taxation on a scale commensurate with civic needs bulk as largely as ever in the divisional reports, more especially for West Bengal.

The Commissioner of the Presidency Division states that, while many defects may be found in the administration of the municipalities in that division, there is on the whole a steady improvement in the standard, and he refers to the demand for filtered water-supply and scientific drainage systems in small rural towns where such things were undreamt of 20 years ago. He considers that the worst defects are generally found in places where there are special difficulties, such as towns which are decaying owing to economic changes, or afflicted with the scourge of malaria, which municipal administration is powerless to combat. He adds: "In many other places faction is rife and interferes with municipal government, and there is much slackness in supervision and in matters of accounts." The Magistrate of Nadia speaks well of the work of all the municipalities in that district except Birnagar. Other district officers are less enthusiastic and one of them remarks that public welfare is too often subordinated to private interests, and tpere is little sign of the existence of any public opinion which alone can secure that Municipal Commissioners make proper use of their powers.

The Commissioner of the Burdwan Division makes special mention of Asansol, Raniganj, Bankura, Suri and Bhadreswar as progressive and well-administered municipalities, and states that most of the others were fairly well managed. Particularly interesting is the contrast in the Burdwan district between the unsatisfactory record of the headquarters municipality, which is characterised by want of control over the municipal staff, inefficiency and waste of public money, and that of the subdivisional headquarters of Raniganj and Asansol, which are well and economically administered. Of the other two subdivisional towns, Kalna and Katwa, the former suffered from want of public spirit and quarrels between executive officers and the latter from party factions. In Bankura there is reported to have been an all-round improvement in out-door work due to the energy of the Chairman. Suri

continued to be administered smoothly and efficiently. The state of affairs in the important municipality of Hooghly-Chinsura continued to be far from satisfactory. The collections were defective and the roads bad; there was excessive consumption of filtered water by private house-holders in the absence of meters; and sanitary officers had not been appointed at the end of the year. The Bansberia municipality again suffered from the apathy of the executive and insufficiency of supervision. The record elsewhere in the Hooghly district is more favourable. The new municipality of Rishra-Konnagore started well; Bhadreswar retained its position as the most progressive municipality in the district; in Baidyabati party-feeling subsided with the compromise of a civil suit; the administration of Uttarpara, in which an elected Chairman held office for the first time, was successful; Arambagh was well managed. The administration of Bally in the district of Howrah, however, was less successful, difficulties being caused by the opposition offered by the Commissioners to a zealous and energetic Chairman, which ultimately led to his resignation.

The Commissioner of Rajshahi considers that the improvement in the administration of municipal affairs in the division, which he noticed in the previous year, is still more marked in the year under review. He states that he visited all the municipalities in his division in the course of the year, and everywhere found a keen interest displayed in civic affairs by the Executive and the Municipal Commissioners which augurs well for the future. In Rampur-Boalia, however, energy unfortunately is misdirected and the true welfare of the town lost sight of in factious discussions over trivial things. The first year's working of Darjeeling under the elective system, and of Jalpaiguri with an elected Chairman is promising. The appointment of a paid Secretary to the Darjeeling municipality has been an unqualified success.

There is little noteworthy in the record of the municipalities in the Dacca Division. Mymensingh is faced with large and expensive schemes for the improvement of the drainage and water-supply, and the Commissioners raised the rate of taxation in order to meet the municipal share of their cost. Madaripur introduced a scheme for the examination of food-stuffs to guard against the spread of tuberculosis. Anxiety was caused in Faridpur by the extensive encroachment of the river Padma on the northern part of the town. The Commissioners of Barisal are satisfied with a low standard of efficiency, but otherwise the account of the municipalites in Bakarganj is favourable. The Commissioner of Dacca considers that with one or two exceptions the municipalities in his division give reasonably good service in proportion to the taxes which they levy, and points out that marked progress in the direction of providing municipal services in any way comparable to European standards can only be secured by increased taxation.

In the Chittagong Division the record of the Chittagong municipality was unsatisfactory. Party feeling ran high among the Commissioners at the beginning of the year over the election of the Chairman, and irregularities of procedure made it impossible for Government to confirm the proceedings of the original election. At a second election the candidate who had been defeated before carried the day, but appears to have remained without a working majority on the Board, with the result that he was thwarted in his work. The Commissioners, moreover, have not shown a proper sense of responsibility in the administration of the new water-works, and executive work has suffered in the absence of the highly qualified Secretary-Engineer who was previously employed with the help of a grant from Government. It is unfortunate that the municipal administration of Chittagong should have been hampered by these difficulties in the first year in which an Indian gentleman has been elected as Chairman. Cox's Bazar is doing its work quietly and efficiently. Chandpur carried out the construction of a useful embankment; large sanitary schemes, both here and in Comilla, have had to be deferred on account of the present financial stringency. In Noakhali work of a permanent nature is still at a standstill in view of the threatened diluvion of the town, but current municipal affairs were efficiently administered.

Calcutta Municipality.

[Report on the Calcutta Municipality for the year 1916-17. Statistics of British India, Part VIII—Local Funds.]

Introductory.

205. The financial stringency caused by the war continued and rigid economy was consequently necessary. The loan of 24½ lakhs which fell due on the 1st September 1916 was repaid from the revenue balance, and important works of drainage, water-supply and road improvement had to be postponed.

Public health Birth and death rates.

206. The health of the city during 1916 was remarkably good, the death-rate falling to 24·7 per 1,000, whereas the lowest rate ever previously recorded was 27·2 (1911). There were no epidemics of any importance, the mortality from respiratory diseases, dysentery and tuberculosis was extremely low, and infantile mortality fell from 287·6 to 249·1 per 1,000 births in the year, although the improvement must be partly discounted in view of improved registration.

The number of births registered rose from 16,578 to 18,737 or 20·9 per 1,000 : a census of children under three years taken in one ward showed that over 93 per cent. had been registered. There were only 78 deaths from plague. The disease never assumed an epidemic form and the city was declared free in the latter part of July and continued to be so throughout the rest of the year. The work of the Corporation midwives under lady health visitors proved very successful. Up to the end of the year, the Corporation midwives attended 627 cases besides arranging for the removal of many difficult and complicated cases to hospital. There were only three maternal deaths while the number of infantile deaths within ten days after delivery was 35. An attempt to start a "Baby clinic" did not find favour with mothers and the idea was abandoned. As an alternative, a system of periodical inspection of babies at their homes by the lady health visitors was introduced, there were only 19 deaths among 464 babies under observation.

Revenue funds.

207. The opening balance was Rs. 39,53,827 and the receipts amounted to Rs. 1,15,60,536, and the payments to Rs. 1,12,22,871. The year closed with a balance of Rs. 42,91,492, which is nearly Rs. 10 lakhs better than the budget estimate. The total ordinary income amounted to Rs. 1,16,04,590, and the total expenditure to Rs. 1,12,86,773.

Loan liability.

208. The loan liability of the Corporation at the close of the year was Rs. 4,90,00,700. The amount payable for the service of these loans is Rs. 30,11,246 per annum.

Assessment Department.

209. The annual valuation of the city stood at the end of the year at Rs. 4,64,44,716 and showed a net increase of Rs. 16,71,719, which was due to general revision and intermediate valuation.

Survey Department.

210. The Survey Department worked out many schemes of improvement, but owing to financial stringency few could be carried out. Plans and estimates for acquisitions, set-backs, sales and transfers were prepared in 107 cases involving about 107½ bighas of land, valued at about 25 lakhs. The actual acquisitions of land cost Rs. 92,449, and there were 56 set-back cases in which the compensation aggregated Rs. 1,79,519.

Collection Department.

211. The year opened with a total demand of Rs. 86,20,583, of which Rs. 82,75,873 was collected and Rs. 2,58,958 was remitted or cancelled as irrecoverable. The percentage of the collections, calculated on the gross current demand, less the amount pending with the Assessor, was 97·47, and calculated on the net demand (*i.e.*, eliminating the vacancy remissions) reached the record figure of 99·85.

Bustee Department.

212. The improvements prescribed for bustees were completed in 33 cases and were taken in hand in 42 other cases. Insanitary bustees covering about 30 bighas were cleared of huts and 12 bustees were aligned. Six private streets were improved and more than a mile of bustee road was opened out.

Stores Department.

213. The great rise in the prices of materials led to an increase in expenditure on miscellaneous stores, but the partial suspension of work reduced the outlay on workshop materials. The result was a total expenditure of Rs. 20,57,305 against Rs. 19,70,242 in the preceding year.

214. The quantity of water supplied to the city averaged over 61¼ (35¾ filtered and 25½ unfiltered) million gallons per day, the average consumption per head per day being 38·6 gallons of filtered and 28·5 gallons of unfiltered water. **Water-supply.**

215. The work in connection with the Canal Area Drainage Scheme was continued and about 1,670 feet of new roads constructed. The 5 miles of roads which follow the lines of the sewers included in the project, have been practically completed, and the area affected, which was formerly a swamp during the rains, has been converted into a good residential locality. The observations taken during the year tend to show that the progressive silting of the channel of the Bidyadhari river continues. A spill area has been created in the Salt Lakes for the improvement of the river, and it is hoped to secure valuable data as to its effect in scouring out the silt. The Chairman remarks :— **Drainage.**

"The extension of its underground drainage system is the most pressing task which now confronts the Corporation. The improvement of communications in the city may be left to the Improvement Trust, but the development of the suburbs must await the provision of a proper drainage system."

216. The improvement of the street lighting has been well maintained, and at the end of the year there were 12,195 gas lamps. The lighting of certain roads by electricity has been a success, and the results in Chowringhee suggest that for very wide thoroughfares electric lighting will prove more satisfactory than gas. **Lighting Department.**

217. The total expenditure on the maintenance of roads amounted to Rs. 8,62,000 as compared with Rs. 9,81,000 in the preceding year. Chowringhee Road between the Esplanade and Kyd Street was paved with asphaltum mixture at a cost of Rs. 58,095. The work was carried out under the direct supervision and guidance of an agent of the Standard Oil Company, the mixing plant being imported from New York. The Chairman remarks :— "Some progress has been made with the road-paving problem ; it is too early to prophesy the success of the asphaltum pavement which has been laid in Chowringhee, Dalhousie Square, Lyon's Range and Clive Street, but the surface has withstood the disintegrating forces of one monsoon, and the extension of the asphaltum programme in the cold weather can be carried out with some confidence." **Roads.**

An expert committee appointed to examine the question of road construction in the city recommended that all roads which are likely to carry heavy motor lorry traffic should be constructed with a foundation of 9-inch lime concrete and a 2-inch surfacing of asphaltum. A comprehensive project has been approved, which embraces 69 roads to be treated in accordance with their recommendation at an estimated cost of 21¼ lakhs spread over a period of 5 years. Effect will be given to the scheme when heavy motor lorry traffic develops in Calcutta.

218. The expenditure during the year on street cleansing, incinerators and the municipal railway amounted to Rs. 10,86,000. The substitution of motor traction for the collection and removal of carcases from the streets, has proved a striking success aud promises to yield an additional income, over and above working expenses, of some Rs. 9,000 per annum. **Conservancy.**

219. A new market was opened in College Street, and gives promise of being a financial success. The steady rise in the receipts from the municipal markets was well maintained during the year under review, the total collections rising by over a lakh and amounting to Rs. 5,93,713. **Markets.**

220. The stockyard at Tangra was completed and brought into use during the year, the total cost of the project amounting to Rs. 1,15,000. The receipts from about the third week of November up to the end of the official year amounted to Rs. 16,900. The butchers who had from the outset opposed the scheme went out on strike on the 3rd November. A meat famine was averted by the prompt and vigorous measures taken by the Deputy Chairman, who succeeded in securing supplies from Asansol, Dinapore and other mufassal stations. The strike lasted until the 18th November, when the butchers gave in and agreed to pass their animals through the stockyard and pay the prescribed fees. No objection has been raised by them since, and **Slaughter-houses.**

apparently they now recognize the advantage of being able to house and feed their cattle cheaply for some hours before slaughter.

Food inspection.

221. The total number of samples of foodstuffs of various kinds analysed was 1,774, being an increase of 57 over the previous year's figure; about a third of the samples of ghee, mustard oil and milk examined were found to be adulterated. About 2,400 maunds of foodstuffs of various kinds were destroyed by the Food Inspectors besides over 12,000 tins of tinned food and quantities of other goods. These figures are exclusive of over 16,000 lbs. of diseased meat destroyed at the slaughter-houses.

Municipal Magistrates' Courts.

222. To cope with the increase of work a second Municipal Magistrate was appointed during the year. The cases instituted and disposed of during the year numbered 20,269 and 19,072, respectively, the fines imposed amounted to Rs. 1,03,182.

Hackney Carriage Department.

223. The number of carriages registered was 3,077 and showed a slight falling off. The number of palanquins registered rose from 83 to 107. There has been a progressive decline in the number of third class carriages during the last few years, as a number of old worn out carraiges are being condemned year after year. The number of prosecutions increased from 2,190 to 2,656 and the total receipts from all sources from Rs. 33,259 to Rs. 33,727.

Education.

224. The grants-in-aid given to educational institutions aggregated Rs. 80,285. Technical schools received grants amounting to Rs. 600 and the usual grant of Rs. 2,400 to the Deaf and Dumb School was continued.

Calcutta Improvement Trust.

[Report on the operation of the Calcutta Improvement Trust for the year 1916-17.]

Power of the Trust to acquire surplus lands.

225. The work of the Improvement Trust received a check during the latter part of the year owing to legal difficulties. A suit for an injunction restraining the Trust from acquiring lands covered by an improvement scheme which lie outside the proposed road alignment was decided in the Original Side of the High Court in favour of the Trust on the ground that the Act gave it power to acquire surplus lands with a view to recovering a portion of the cost of the scheme. Another suit of the same nature was, however, decided in the Appellate Side of the High Court against the Trust, it being held that the Act gave it no such power. These two conflicting decisions of the High Court rendered the legality of the Trust's power to acquire lands lying outside the line of a road doubtful, and all schemes involving such acquisition, as well as proceedings for the acquisition of surplus lands, were stayed. It was not till after the close of the year under review that the question was referred to a Full Bench of the High Court, which decided it in favour of the Trust.

Projected public streets.

226. The adverse effects of this check were mitigated by the fact that it came at a time when the Board of Trustees had already decided not to undertake the execution of any large improvement schemes other than those already under preparation but to concentrate attention on finally determining and obtaining the sanction of Government to the alignments of roads which will form part of future schemes. This they are enabled to do by a recent amendment of the Calcutta Improvement Act (Act III, B.C., of 1915), which empowers them to lay down the lines of projected public streets and to prohibit the erection of new buildings within such lines. Fifteen alignments (noted in the margin) were published by the Trust for criticism during the year, and several of these were under the consideration of Government at its close. Two small improvement schemes, viz., No. XIII (Marcus Square extension) and XIV (Shambazar Park Scheme) were published for public criticism during the same period.

V.—Bowbazar Parallel.
VII.—Inner Strand Road.
VIII.—Aheritolla Street Widening.
XI —Dhurumtollah Relief Road.
XII.—Ballygunge Main Road.
XIII —Jaggannath Ghat Road.
XIV.—Inner Strand Road (continuation of proposed public street VII).
XV.—Darmahatta Street Widening.
XVI.—Amherst Street Extension.
XVII.—Kyd Street Extension.
XVIII.— Ditto (eastern section).
XIX.—Taltolla Diagonal.
XX.—Shambazar Street Widening.
XXI.—Aheritolla Diagonal Extension.
XXII.—Kumartuli Ghat Road.

Finance.

227. The expenditure under capital account, incurred principally on land acquisition, amounted to Rs. 40·12 lakhs, of which more than Rs. 23 lakhs was spent in the first-half of the year before the legal difficulties referred to above had arisen. The total receipts amounted to Rs. 6·66 lakhs only, the deficit from total expenditure being met from the funds, amounting to Rs. 33·46 lakhs, transferred from the revenue account. The revenue account opened with a balance of Rs. 91·38 lakhs and the total receipts from all sources amounted to Rs. 29·83 lakhs. The total expenditure on the revenue account was Rs. 4·81 (excluding Rs. 8·1 lakhs on account of depreciation on investments), which left a surplus of Rs. 108·3 lakhs at the close of the year.

District Boards.

[Reports from the Commissioners of Divisions on the working of District Boards in Bengal during the year 1916-17. Statistics of British India, Part VIII—Local Funds.]

Appointment of non-official Chairman.

228. An important constitutional change was made during the year under review by appointing, as an experimental measure, a non-official to be Chairman of the Murshidabad District Board.

Local Boards.

229. Fifteen Local Boards failed to meet once a month, but there was a satisfactory decrease in the number of meetings which failed for want of a quorum. General elections were held in the districts of Howrah, Hooghly, Dacca and Bakarganj. In six thanas the elections failed, principally owing to the non-attendance of the prescribed number (10 per cent.) of registered voters.

In Midnapore the execution of works for the improvement of rural water-supply was transferred to the District Engineer in consequence of the inadequacy and inefficiency of the Local Board's staff; while the power to sink and maintain wells was withdrawn from all but one of the Local Boards in Burdwan, as the work done by those bodies was found to be unsatisfactory. On the other hand, the Uluberia Local Board was commended for the success of the system of having road and bridge repairs supervised by local gentlemen.

Union Committees.

230. The number of Union Committees actually at work at the end of the year increased from 90 to 156, of which 73 were in West Bengal and 83 in East Bengal. The increase in numbers took place entirely in East and North Bengal, where, in addition to the establishment of 42 Unions in Dacca, which had been sanctioned in March 1916, two Unions were constituted in Tippera, seven in Faridpur and fifteen in Rangpur. In West Bengal new Union Committees were sanctioned in the districts of Birbhum, Hooghly, Jessore, Khulna and Nadia, but were not actually in operation before the end of the year. In Khulna the formation of 24 new Unions was sanctioned and four old Unions of an unwieldy size were remodelled, so as to coincide with Chaukidari Unions, in conformity with the principles advocated by the District Administration Committee. The new Committees in Dacca and Faridpur were constituted on an elective basis. In West Bengal the elective system was adopted in all but one of the new Committees and was also introduced into six existing Committees. Further steps have since been taken for the extension of the elective system.

Income.

231. The total income of Union Committees, excluding opening balances, increased from Rs. 1,11,968 to Rs. 1,68,505, of which Rs. 1,02,087 was contributed by the District Boards. The number of Committees imposing self-taxation rose from 36 to 67, and the amount realized, viz., Rs. 39,801, was double what it was two years previously.

With two exceptions the District Boards in East and North Bengal make uniform allotments to each Committee, irrespective of local receipts; the same practice is followed by the District Boards of Burdwan, Bankura and Nadia. This is a useful procedure in the case of new Committees, but it is to be hoped that once a Committee is well established, District Boards will determine their contributions with close regard to the needs of each Union and the willingness of the villagers to contribute to expenditure on sanitary improvements.

Balances.

232. The number of Committees disposing of the whole of their funds increased from 14 to 35, while twenty-one were left with balances of Rs. 10 or less. The closing balances of the Committees in Burdwan amounted to more than half their expenditure; one Committee spent little more than a third of its income. On the whole, however, there has been a general improvement due as much to the energy which newly formed bodies have shown in making use of their funds as to greater efforts in this direction on the part of the old Committees. Some of the older Committees, such as Rampur Hat, which spent Rs. 7,183 out of an income of Rs. 8,876, are handling larger sums than the smaller municipalities and seem to be doing so in a business-like manner.

Expenditure.

233. Approximately half of the total expenditure was incurred on roads, and one-third on sanitation and water-supply. The amount spent on water-supply was doubled, but is still only Rs. 22,699. The Committees in three districts in the Presidency Division and one other Committee devoted part of their funds to dispensaries. Nothing was spent on education except by the Committees in Jessore and a few in Murshidabad and Dacca.

Satisfactory progress was made by Union Committees during the year. With expanding resources and renewed interest in their work, many of the older Committees are emerging from the torpor which had settled upon them. The majority of the Committees recently established in Dacca have made a good start, and elsewhere Union Committees have shown considerable vitality and public spirit. Two Committees in the 24-Parganas combined to form a joint Union Committee under section 44 of the Local Self-Government Act with the object of improving the drainage, water-supply and conservancy of the trading centre of Magrahat. Another Committee in the same district raised Rs. 1,500 from voluntary subscriptions for the improvement of roads. In other districts also several Committees succeeded in obtaining private donations for various schemes of improvement. The Narail Committee commenced the execution of a scheme for the drainage of the town of Narail, for which it had been accumulating funds. The Committees in Birbhum kept up their record of good administration, their funds being intelligently and usefully spent in maintaining village roads, improving the water-supply, filling up insanitary pits, constructing drains and cess-pools, clearing jungles, etc. The Committees in Howrah have suffered from their unwieldy size, faulty composition and a desire to avoid taxation, but in spite of this they have done work of considerable value: the state of their roads is said to compare favourably with that of the Local Board roads and the bazars under their control are ordinarily in a very fair state of cleanliness. In Murshidabad the members of the Committees are beginning to realize that it is their duty to consider the interests of the Union as a whole and not only of the villages to which they themselves belong. This is a healthy symptom, for improvements in the larger Unions are frequently inclined to centre on the main place within the Union—a policy which is an effectual deterrent to the majority of the residents acquiescing in self-taxation.

There were some exceptions to the generally favourable account of the working of Union Committees. The creation of Committees in the Khulna district is said to have been unpopular and to have created ill-feeling. In one Committee the nominated members object to sitting with elected members on the ground that the latter may be persons who, according to the social customs of the country, should stand before them. In Burdwan the few enlightened men in the villages have, it is said, to contend against a dead weight of ignorance, apathy and selfishness. Both in that district and in Midnapore Committees show little or no signs of improvement, and the few that exist in Bankura are doing little or no work.

It must be recognised that the work of Union Committees under the existing law can be only a partial preparation for the fuller system of village self-government which is contemplated by the Bengal Government. The Committees are restricted in their powers, and a large number of the Unions formed in the past are of unmanageable size. In Howrah, for instance, no Union corresponds either with a single chaukidari union or group of unions; the areas vary from $1\frac{3}{4}$ to $13\frac{1}{2}$ square miles, the population from 7,677 to

30,186. The full development of the Union as the unit of local self-government must await legislation, but in the meantime there is much to be done in remedying this state of affairs and in promoting the formation of new Unions which can be absorbed ultimately in the new system.

District Board Receipts.

234. There was a slight decrease during the year both in receipts and expenditure, which cannot, however, be attributed to any general causes. Revaluation and better collections combined to produce an increase of Rs. 2,37,324 in the provincial rates, but grants from Government were reduced by Rs. 4,86,762. On the other hand, receipts from education rose owing to an increase in special educational grants made by Government. The latter amounted to 9½ lakhs. They included Rs. 3,11,000 for the maintenance, and Rs. 57,000 for the repair of Board primary schools, Rs. 4,77,000 for the enhancement of the pay of teachers in boys' aided primary schools and *maktabs*, and Rs. 1,05,000 for female and Muhammadan education. Receipts from railways aggregated Rs. 90,704, an addition of Rs. 17,049 being shared in by the districts of Hooghly, Howrah and the 24-Parganas, as the result of an increase in the profits of light railways working under agreements with the Boards. The realizations from pounds (Rs. 3,70,190) and ferries (Rs. 4,94,363) rose by Rs. 19,783 and Rs. 63,186, respectively, owing to keener competition at the auctions of ferry leases and to greater energy in realising arrears from the lessees of pounds.

Expenditure.

235. For the last three years the District Boards have been spending more than their current income, as they have been able to utilize the accumulated balances of the receipts from the Public Works cess, which was made over to them in 1913-14. In the years 1914-15 and 1915-16 the current expenditure exceeded the current income by 5½ and 7½ lakhs, respectively. In the year under review the excess amounted to Rs. 2⅓ lakhs.

Administration.

236. The cost of administration continues to rise; the percentage to the total expenditure chargeable to current income varied from 1·3 in Bankura to 5·1 in Jessore. The increase is again ascribed to periodical increments of salary, grain compensation allowances, increased travelling allowances, and also to the enhanced cost of stationery due to war conditions.

Education.

237. The total number of upper and lower primary schools maintained and aided by District Boards increased from 32,194 to 34,020, of which 26,821 were boys' schools, and 7,199 were girls' schools: altogether 2,824 schools were maintained by the Boards. The sum spent on primary schools (Rs. 18,11,731) was almost double the amount of the contribution given by Government. The Government of India have recently emphasised the responsibility of the Boards for primary education, and it is satisfactory to find that over 75 per cent. of their expenditure on education was devoted to primary schools. Of the balance nearly 2½ lakhs were spent on the maintenance of middle, training and special schools, on inspection, and scholarships, and there remains the usual residue of about 2 lakhs, a large part of which must have been spent in grants to secondary schools.

Technical and Industrial Schools.

238. The general record of the technical and industrial schools maintained or aided by the Boards is, as usual, one of high expenses, mediocre examination results and poor attendance. The Diamond Jubilee Industrial School at Rajshahi, however, had 80 pupils against 64 in the previous year, while the numbers at the Kashi Kishore Technical School in Mymensingh increased from 37 to 46, and were more than could be properly trained with the existing staff. The Elliott Bonomali Technical School at Pabna had 136 boys on its rolls and gave practical training in carpentry to 175 more boys from the Zilla School.

The Boards continued to avail themselves to an increasing extent of their power to grant scholarships tenable at the major technical or professional institutions and have also shown considerable liberality in establishing scholarships tenable at the smaller institutions at district headquarters. Weaving, engineering, medicine, veterinary knowledge, agriculture and art are among the subjects in which training is now being given with the help of these scholarships; they have also been made use of in order to place blind and deaf and dumb students at the schools in Calcutta established for these classes of defectives.

Medical aid.

239. There was a decrease of Rs. 68,889 in medical expenditure, which the divisional reports agree in attributing to the healthiness of the year. Altogether 37 new dispensaries were established, and the number maintained and aided by the Boards rose to 440. Further efforts were made to bring medical relief to the homes of villagers in riverain tracts, floating dispensaries being started in Bakarganj and Mymensingh, and village market (*hât*) dispensaries in Mymensingh and Faridpur. Measures were taken, as usual, for the supply of quinine, especially in the district of Birbhum, where, with the help of a Government grant, twelve anti-malarial dispensaries were opened, and quinine to the value of over Rs. 6,000 was distributed free. The co-operation of non-official committees, school-masters, etc., was enlisted and the results among school-children are said to have been remarkable. Free vaccination was organized in certain thanas of Bakarganj, Faridpur and the 24-Parganas ; it is reported that in two years one out of every six persons has been vaccinated in the six thanas of Bakarganj, in which compulsory vaccination is in force.

It does not appear that the District Boards have been able to employ female doctors to any great extent.

Sanitation.

240. A decrease of expenditure on sanitation amounting to Rs. 56,591, is partly due to the exclusion of expenditure on water-supply from the accounts under this head. As usual, a large part of the money was spent through the agency of Union Committees on sanitary works of a petty character. The services of Sanitary Inspectors were made use of for a variety of tasks ranging from those of a specifically sanitary kind, such as the supervision of arrangements for the prevention of disease at fairs, to purely medical work, such as the treatment of cholera cases and employment in District Board dispensaries. The whole question of the qualifications and functions of the sanitary staff of District Boards is now under the consideration of Government.

Civil Works.

241. The total expenditure under this head, which includes the sums spent on water-supply and drainage, fell by Rs. 4,20,577. There was a decrease of nearly five lakhs in the outlay on original works of communication, while charges for repairs increased by over half a lakh. The mileage of metalled, unmetalled and village roads in the charge of the District Boards at the end of the year was 2,034, 13,544 and 16,408, respectively, showing an increase of 87 miles in metalled, of 139 miles in unmetalled roads, and of 640 miles in village roads. The District Boards of Midnapore, Noakhali, Murshidabad and Burdwan allowed over 20 per cent. of their allotments to lapse, but only three other Boards had lapses of over 10 per cent., whereas in the previous year there were eight Boards with lapses of more than 10 per cent., including one of over 30 per cent.

Instructions were issued by Government at the end of the year under review discouraging District Boards from trenching too largely on the Public Works cess in order to increase expenditure on roads and urging them to allot larger sums for the improvement of rural water-supply.

Water-supply.

242. The returns show an increase of only Rs. 58,208 in the expenditure on water-supply, and in spite of the fact that Government have lost no opportunity of impressing their responsibility in the matter, several District Boards are still backward in taking measures for the improvement of the rural water-supply. Twelve Boards spent less than in the previous year, and the expenditure of those in the Chittagong Division (excluding work done by way of famine relief in Tippera) was barely half of that incurred in 1915-16. An extreme case is that of the Midnapore District Board, which spent only Rs. 4,442, or 2·2 per cent. of the Public Works cess, out of a total income of over 5 lakhs. The failure to do more is attributed to difficulty and delay in securing sites for wells, an explanation which, as the Commissioner remarks, is not satisfactory. It is reported that in this district original works in connection with the water-supply were taken out of the hands of the Local Boards. No allotments were made to them, and the working out of the programme drawn up last year was left entirely in the hands of the District Engineer. This policy must be pronounced to be a complete failure so far, and it is not creditable to the Board that it should not have found it possible to attain even to the expenditure of Rs. 5,000 which was looked on

as a minimum before the transfer of the Public Works cess. Three other Boards, viz., Dinajpur, Jalpaiguri and Bakarganj, spent less than 10 per cent. of the Public Works cess receipts on water-supply, although the expenditure of the Board last named was double of that incurred last year. On the other hand, persistent efforts are being made by some Boards to meet local needs on a large and generous scale. For instance, the District Board of Nadia spent as much as two-fifths of the Public Works cess on schemes of water-supply; the District Board of Pabna trebled its expenditure, which amounted to one-third of its income from the cess; the District Board of Bogra attained a percentage of 35, and three other Boards spent more than 30 per cent.

Important instructions were issued during the year in order further to facilitate expenditure on water-supply. There had been for some time a mistaken idea that Government expected one-third of the cost of tanks executed by a District Board to be contributed by the villagers who would immediately benefit from them. No such orders were in fact in force, and, while the principle of requiring a local contribution is reasonable in the case of a well-to-do locality, Government do not consider that this should be insisted on as a rule. The District Boards were informed of the real position.

Drainage.

243. The only drainage work of any importance carried out during the year was the completion of a scheme for draining the Satla Bil in Bakarganj. The work is reported to have been successful and to have improved the condition of crops in the locality.

Arboriculture.

244. All the Boards, with the exception of Dacca and Bakarganj, spent small sums on roadside tree-planting, the largest expenditure (Rs. 5,277) being incurred by the District Board of Mymensingh. The District Board of Tippera had the misfortune to lose over 1,000 trees, which were destroyed by floods.

Veterinary charges.

245. There was a further increase in the expenditure on veterinary work, which has grown by over 50 per cent. in two years. The expansion of veterinary work is common to all divisions, and the demand for veterinary assistants is reported to have exceeded the supply of qualified men, so that in several cases posts recently sanctioned by District Boards have had to remain unfilled. A veterinary dispensary at Barisal, the cost of which amounted to Rs. 26,682, was completed during the year.

Railways.

246. In the Presidency Division the Jessore-Jhenidah Railway continued to work at a loss, and a dispute between the District Board and the Company as to the consequent liabilities remained unsettled at the end of the year. The Kalighat-Falta Railway was completed and the construction of the Khulna-Bagerhat Railway was taken up The construction of feeder roads to railway stations, especially in connection with newly opened railways, is a measure for the improvement of communications of which particular mention is made in the reports on the district of Mymensingh and certain districts in the Rajshahi Division.

Famine Relief.

247. The District Boards of Bankura, Mymensingh and Tippera continued measures for the relief of local distress, which had been begun during the previous year. They came to an end in the early part of the cold weather of 1916.

Closing Balances

248. There was a further decrease of Rs. 1,82,267 in the actual closing balances, and many of the District Boards are approaching a point beyond which the reduction of working balances cannot reasonably be carried. The process has already gone far enough in the case of some Boards, such as Rangpur, which has an actual closing balance of Rs. 8,282 against current expenditure of Rs. 5,44,000, and Bankura and Nadia, which have balances of less than Rs. 10,000 each against current expenditure of Rs. 3,86,000 and Rs 3,47,000, respectively. On the other hand, the District Boards of Burdwan and Midnapore retain disproportionately large balances of Rs. 3,06,565 and Rs. 2,23,654 respectively, approximating in each case to half the current expenditure. The reasons assigned are in the case of Burdwan an underestimate of cess receipts, and in the case of Midnapore savings on estimates of expenditure. The savings under the head "Civil Works" in the last district are so large as to suggest a want of proper energy on the part of the Board's engineering staff. The District Boards of the 24-Parganas and Mymensingh retained balances of approximately one and-a-half lakhs

each (excluding a Government grant of two lakhs for a drainage scheme in the 24-Parganas which the Board has not yet been able to take up), and the Tippera and Jalpaiguri Boards balances of slightly over one lakh each. In addition to these, the District Boards of Murshidabad, Pabna, Rajshahi, Malda and Noakhali retained closing balances amounting to more than 20 per cent. of their current expenditure, for which only the two Boards first named seem to have put forward an adequate explanation.

Volunteers.

Total Strength.

249. The total number of volunteers and reservists during the year under report was 8,333, of whom 7,893 qualified as efficients.

Marine Department.

(1) Annual Report of the Port Officer, Calcutta, 1916-17.
(2) Ditto ditto, Chittagong, 1916-17.
(3) Annual Report on Shipping Offices in Bengal, 1916-17
(4) Annual Report of the Health Officer of the Port of Calcutta, 1916.
(5) Ditto ditto ditto Chittagong, 1916.
(6) Administration Report of the Agent, Government Consignments, 1916-17.
(7) Annual Report of the Bengal Smoke Nuisances Commission, 1916-17.
(8) Administration Report of the Port Commissioners, Calcutta, 1916-17.
(9) Ditto of the Howrah Bridge, 1916-17.
(10) Ditto of the Port Commissioners, Chittagong, 1916-17.
(11) Ditto of the Bengal Steam-boiler Commission, 1916-17.

PORT OF CALCUTTA.

Bengal Pilot Service.

250. There were during the year 61 Pilots, including one Licensed Branch Pilot and 10 Leadsmen Apprentices in the Bengal Pilot Service. Without impairing the efficiency of the service to any material extent, Government were able to grant permission to 11 Pilots and 4 Leadsmen Apprentices to proceed on active service in connection with the war.

The casualties in the service were (*a*) one Branch Pilot retired, (*b*) one Senior Master Pilot, who proceeded on active service in connection with the war and obtained the military rank of Major, was killed in a motor bicycle accident in France, and (*c*) one Leadsman Apprentice resigned. As suitable recruits from England were not available, an endeavour was made to obtain Leadsmen Apprentices from the Mercantile Marine in the East, but only one candidate applied and he was appointed as a Leadsman Apprentice.

Owing to shortage of Leadsmen caused by the deputation of some of them to military duty and the difficulty experienced in obtaining suitable recruits from England, Mate Pilots were, with the sanction of the Secretary of State, appointed temporarily as Chief Officers of the two Pilot vessels, so that the Leadsmen who completed their time as officers of the Pilot vessels might, after acquiring a knowledge of the river Hughli pass the requisite examination for promotion to the grade of Mate Pilot.

Vessels piloted.

251. Vessels to the number of 1,119 with a gross tonnage of 4,513,255 and vessels to the number of 1,125 with a gross tonnage of 4,549,737 were piloted inwards and outwards, respectively, against 1,145 and 1,154 vessels with a gross tonnage of 4,832,612 and 4,750,736 respectively, during the preceding year.

The number of vessels drawing over 21 feet piloted inwards and outwards was 304 and 738 against 395 and 739 vessels in the past year.

Pilotage receipts.

252. The receipts from pilotage fees were Rs. 10,73,967 against Rs. 11,06,117 and Rs. 13,14,601 in the two previous years.

Casualties to Vessels.

253. There were 18 cases of groundings against 23 in 1915-16. No damage resulted. In four instances the Pilots were found to be guilty of error of judgment. Two collisions occurred against one in the preceding year. In one case damage resulted; the Pilot was found to be guilty of an error of judgment and suitably dealt with. Two cases of casualties to inland steam vessels were referred to Special Courts of Enquiry.

Examinations.

254. Out of a total number of 78 candidates, 32 successfully passed the examination for the grant of Colonial and Home Trade certificates of competency as Master, Mate, Engineer or Engine driver and 122 out of 460 candidates passed the examinations for the grant of certificates of competency as Master, Serang or Engine driver of inland steam vessels.

A set of uniform rules for the grant of certificates of competency to Masters and Serangs of Inland Steam Vessels was adopted in supersession of separate rules on the subject that were in force in the western and eastern districts of the Province. Revised rules were also framed for the grant of certificates of competency (i) to Engineers and Engine-drivers of inland steam and motor vessels and (ii) to Engine-drivers of sea-going steam-ships having engines of under 50 nominal horse power.

In the absence of an officer of the Royal Indian Marine to take up the work of the Assistant Port Officer, Calcutta, who was transferred to military duty, the duties of the post were with the sanction of the Government of India entrusted as a special case to Mr. S. H. Reaks, Senior Master Pilot.

PORT OF CHITTAGONG.

Vessels entering and leaving the Port.

255. Vessels numbering 774 (including 547 inland steamers) with a gross tonnage of 529,517 entered the Port and 776 vessels (including 547 inland steamers) with a gross tonnage of 525,423 cleared as against 838 vessels (inclusive of 535 inland steamers) and 817 vessels (inclusive of 519 inland steamers) representing a gross tonnage of 626,305 and 621,516 respectively in the preceding year.

Casualties to vessels.

256. Three cases of casualties to vessels occurred during the year. In two cases the vessels were totally lost owing to foul weather. In the other case damage was caused owing to the vessel's fouling the jetties when swinging to the ebb tide.

Examinations.

257. Out of a total number of 82 candidates, 26 successfully passed the examination for the grant of certificates of competency as Master, Serang or Engine-driver of inland steam vessels.

SHIPPING OFFICES, CALCUTTA AND KIDDERPORE.

Finance.

258. The receipts of the Shipping offices amounted to Rs. 94,074 and the expenditure to Rs. 69,288 against Rs. 94,319 and Rs. 57,669 respectively, in the preceding year.

Seamen shipped and discharged.

259. The number of seamen shipped and discharged was :—

Articles.	1915-16.	1916-17.	Increase.	Decrease.
Shipped—				
European	1,089	1,300	211	...
Indian	39,438	37,198	...	2,240
Discharged—				
European	832	1,166	334	...
Indian	31,597	30,665	...	932

There were 40 Anglo-Indians shipped on European and 363 on Indian Articles during the year, as compared with 61 and 375 in the previous year.

Repatriation of distressed seamen.

260. The total number of seamen repatriated during the year was 72, of whom 53 were repatriated owing to sickness, three on termination of agreement, three on account of imprisonment, one for missing his vessel, two on account of venereal disease and 10 by mutual consent.

CHITTAGONG SHIPPING OFFICE.

Finance.

261. The receipts of the Chittagong Shipping office amounted to Rs. 718 and the expenditure to Rs. 923 against Rs. 398 and Rs. 888 respectively in the previous year.

Seamen shipped and discharged.

262. The number of seamen shipped and discharged was 150 and 507 against 144 and 304 respectively during 1915-16.

HEALTH OF THE PORT OF CALCUTTA.

Inspection of vessels.

263. The number of inward and outward bound vessels inspected by the Health Officer was 454 and 755 against 466 and 659 respectively in 1915.

The number of crew hands and passengers passed or rejected was :—

		Passed.	Rejected.
Outward bound vessels ...	Crew hands ...	50,250	90
	Passengers ...	16,135	30
Inward bound vessels ...	Crew hands ...	28,254	...
	Passengers ...	7,775	...

Health of Seamen.

264. The number of European seamen admitted into hospitals was 388 of whom 9 died, against 434 admissions and 9 deaths in 1915.

There were 67 cases of venereal diseases against 45 in the previous year. There were 8 cases of deaths at sea against 6 in 1915.

The number of deaths among Asiatic seamen was 133 or 5·14 against 173 or 6·69 per mille in 1915.

There were forty-seven deaths from cholera, 37 from drowning and 9 from accidents.

Infectious diseases.

265. Five cases of small-pox and two of chicken-pox were reported to have occurred on sea-going vessels. The quarters occupied by the patients and their clothing and bedding were thoroughly disinfected. The patients were removed to the Campbell Hospital and the crew vaccinated. Thirteen cases of cholera occurred on board sea-going vessels. The quarters occupied by the patients, the galley and the latrines were thoroughly disinfected and the drinking water tanks emptied out and disinfected. Only one case of measles was reported from a sea-going vessel. There was one case of Beri-Beri on board the SS. "Angus" and 14 cases on SS. "Cinta Maru". The vessels were disinfected and the provisions of the crew examined.

HEALTH OF THE PORT OF CHITTAGONG.

Infectious diseases.

266. There was not a single case of any infectious disease either on incoming or out-going vessels, or vessels lying in port.

Inspections.

267. The total number of vessels inspected was 34 against 45 in 1915.

AGENCY FOR GOVERNMENT CONSIGNMENTS.

Finance.

268. The total receipts of the Agency were Rs. 9,56,948 and the expenditure was Rs. 8,94,318.

Tonnage handled.

269. The tonnage dealt with was :—

Packages	815,567 and 294,985 fire-bricks.
Tons	47,417

The total value of freight bills passed by the Agency was Rs. 7,49,773.

BENGAL SMOKE NUISANCES COMMISSION.

Inspections and Observations.

270. The Inspectors of the Department made 10,399 observations of smoke emission, against 11,891 during the previous year, and they visited 4,936 factories, etc., for the purpose of inspection of power plant, instruction of firemen and testing of fuel appliances, as against 5,236 in 1915-16.

The average emission of smoke of the greatest density was 1·31 minutes in the hour against 1·4 minutes in the past year. This is an improvement on the last year's result, and is the lowest figure on record.

The conditions arising from the war, by which it was essential to maintain the maximum possible output from factories, necessarily and rightly demanded great tact and discretion on the part of the Commission in dealing with excessive emission of smoke from such places. Again the enormous increase in the price of material caused by the war made it quite impossible

for factory owners to carry out certain suggestions for improvement made by the Commission. In spite of these unfavourable conditions, it is satisfactory to note that progress has been made towards the abatement of smoke nuisance.

Amendment of the Bengal Smoke-nuisances Act and the issue of rules under the amended Act.

271. The Bengal Smoke Nuisances Act, 1905, was amended by Act 1 of 1916. The amended law came into force from the 5th April 1916. It has facilitated the work of the Commission in several ways.

During the year, by virtue of the amended law, two new members, one representing the Calcutta Corporation and the other the Port Commissioners of Calcutta, were added to the Commission, thereby securing for the first time a majority of non-officials in the Commission.

The provisions of the Act were also extended to the locality known as Panchpara in the district of Howrah, in order to deal with the smoke emitted by the lime-kilns at that place. For some years past this emission of smoke had been a menace to safe navigation in the river Hooghly in that area.

Rules were framed under the amended Act by which the two hours hitherto allowed to ocean-going steamers for emitting offensive smoke prior to leaving moorings, were reduced to reasonable limits.

Finally under the new law the Commission were given extended powers of control over flues or chimneys within their jurisdiction.

On the recommendation of the Commission the fees for the examination of ordinary and tindal stokers under the Act, which were high for this class of workmen, were reduced from Rs. 8 and Rs. 5 to Rs. 2 and Re. 1, respectively, from the 27th April 1917.

Prosecutions under the Act.

272. The number of complaints regarding smoke nuisance received by the Commission during the year was 47 against 42 in the previous year. Satisfactory relief was promptly given by the Commission wherever possible. Statutory warnings served on factory owners, etc., were 52 against 86 in the preceding year. Prosecution was resorted to in 29 cases against 48 in the preceding year. All the cases ended in conviction. The decrease in the number of both statutory warnings and prosecutions is regarded as an encouraging sign and it is hoped that in course of time the necessity for such measures will decrease more and more.

HOWRAH BRIDGE.

Receipts and charges.

273. On the 31st March 1916 the balance sheet of the bridge showed a deficit of Rs. 3,32,024, which has been carried forward as a debit on Revenue Account.

The presence of this debit combined with the necessity for providing for a probable deficit on working account attributable to a decline in receipts and to the heavy expenditure to be incurred on the structural repairs to the Bridge itself, led to the appointment by Government of a Special Committee for a consideration of the means for improving the finances of the Bridge. The income of the Bridge during the year 1916-17 amounted to Rs. 2,50,546 against Rs. 1,95,365, the actuals of the preceding year. The increase is mainly due to the fact that the East Indian Railway offered to increase their contribution to a minimum of Rs. 2 lakhs as earnings from Railway traffic, as a result of the deliberations of the said Committee.

The expenditure for the year amounted to Rs. 4,51,455. This amount includes the abnormal expenditure of Rs. 2,13,556 on special renewals to the Bridge structure and repairs to Howrah Ferry landing stage. The net working result was a deficit of Rs. 2,00,908, so that the aggregate debit on all accounts on the 31st March 1917 stood at Rs. 5,29,775. In consequence of this state of affairs Government have decided on the re-imposition of a terminal fee of 2 pies per maund on grains and seeds traffic over the bridge to and from Howrah with effect from 1st April 1917. This increase will, it is anticipated, result in additional revenue to the extent of about Rs. 1,50,000 per annum and should yield a surplus on working account which will gradually extinguish the present debit.

The Bridge was opened on 308 occasions of which 41 were during the day and 267 at night.

Proposal for new Bridge.

274. Owing to the war it cannot be said for certain when the construction of the new Bridge, which is under consideration, will be definitely taken in hand. In November 1916, at the instance of Government, Mr. Basil Mott visited Calcutta to examine local conditions at the site of the Bridge and to advise Government on the best type of bridge suited to the locality and the traffic using the river. His report is awaited. The existing Bridge is an old structure, and the immediate renewal and repair of certain structural parts was a pressing necessity. The Port Commissioners, Calcutta, with the sanction of this Government, accepted the tender of Messrs. Jessop & Co. for the repair work but the Company were unable to push on with the work as rapidly as desirable, owing to the restrictions imposed on the export of iron and steel from England.

Repairs of the existing Bridge.

CHITTAGONG PORT TRUST.

Finance.

275. The ordinary receipts of the Port Fund during the year 1916-17 amounted to Rs. 2,45,206 as against Rs. 2,85,290 of the preceding year. A grant of Rs. 1,50,000 was given by Government for the improvement of the Port and a sum of Rs. 20,208 was received as an annual assignment from the Burma Coast Light Dues Fund. The total receipts of the Port Fund amounted to Rs. 4,15,414 as against Rs. 4,55,498 of the preceding year. The decrease was due to the fall in revenue on account of the war.

The ordinary expenditure of the Port Fund amounted to Rs. 4,38,319 as against Rs. 4,62,184 of the previous year.

Capital expenditure.

276. The expenditure on Capital works from the Port Fund during the year amounted to Rs. 95,424 of which the following were the principal items :—

	Rs.
Construction of a new hull for the S. T. "Gekko"	74,540
Cost of land for Arracan Yard Coal Depôt	7,660
Mooring materials	9,418

The construction of the new hull for the S. T. "Gekko," which was commenced last year, was completed during the year.

Assets and liabilities.

277. The value of the Port Commissioners' properties was estimated on the 31st March 1917 at Rs. 35,90,091, and the liabilities, excluding loans from Government for revetment work, amounted to Rs. 12,295.

Arrival of Vessels.

278. The total number of steamers and country craft which entered the Port during the year was 1,272 as against 1,219 in the previous year.

Value of Trade.

279. The total value of sea-borne trade, both foreign and coasting, amounted to Rs. 886·68 lakhs as against Rs. 863·86 lakhs in the previous year.

Training works in the river Karnafuli.

280. The steady deterioration of the river Karnafuli during the past years engaged the serious attention of Government and the Port Commissioners and details of a scheme of extensive training works for the improvement of the channel were under preparation.

The question of the type of Dredger most suitable for work in the port was also under the consideration of this Government and the Government of India.

BENGAL STEAM BOILER COMMISSION.

Inspection of Boilers.

281. The total number of boilers on the registers for Calcutta and other places within the jurisdiction of the Commissioners was 5,683 against 5,648 in the previous year. In Calcutta and its environs 1,835 boilers were inspected and in the mufassal 2,991 including 19 twice presented for inspection in Calcutta and suburbs and 63 in the mufassal. The total number of inspection in respect of which certificates were granted was 4,826.

Two hundred and sixty-five boilers (in Calcutta and neighbourhood and in mufassal) were struck off the Boiler registers during the year, for the reason that they had not been presented for examination for five consecutive years, or that they had been removed out of jurisdiction, or condemned as unfit for further service. The remaining 674 boilers were not offered for inspection as being temporarily out of use or undergoing repairs.

Rules were finally issued under the amended Boiler Act, regulating the grant of leave and pension to the Inspectors of the Boiler Inspection Department. These rules had been under consideration during the previous year.

CALCUTTA PORT TRUST.

Income and expenditure.

282. The income from ordinary sources during the year amounted to Rs. 1,30,62,532 or Rs. 1,75,241 less than that of the previous year. This was suplemented by the special war surcharge amounting to Rs. 26,60,897 as against Rs. 26,97,683 in 1915-16. The total income thus amounted to Rs. 1,57,23,432 which was less than that of the preceding year by Rs. 2,12,024.

The expenditure amounted to Rs. 1,56,31,738 as against Rs. 1,49,07,001, the actual expenditure of the previous year. After meeting the debit of Rs. 60,035 with which the year opened there was left a small credit balance of Rs. 31,658 to carry forward to 1917-18.

Capital expenditure.

283. The amount actually spent on capital account was less than what was anticipated, *i.e.*, Rs. 38·50 lakhs as against Rs. 70·8 lakhs of the budget estimate. This was due to the restrictions imposed in April 1916 on the export of iron and steel from the United Kingdom. The expenditure was met from the opening balance of Rs. 53·5 lakhs, supplemented by a loan of Rs. 50 lakhs which was obtained from the Bank of Bengal under special arrangement, a portion of the credit balance having been utilized to finance the Suspense Account and to meet the debits incurred by the Bridge Commissioner on the working of the Howrah Bridge. The principal works in progress during the year were—

(1) Provision of five additional berths at Garden Reach.
(2) Reclamation work in connection with the new Docks scheme.
(3) Construction of a 4-storeyed warehouse in Hide Road.
(4) Sinking three trial wells at the Lock entrance to King George's Dock.

Capital account.

284. The capital debt of the year was Rs. 10,80,56,688, while the sum of the value of the property according to the Block Account and of the balance of the capital account was Rs. 14,40,04,267.

In addition to these assets there are three other funds of the Commissioners which constitute important assets of the Trust. These are the Reserve Fund, the Depreciation Fund and the Fire Insurance Fund. The total assets at credit of these funds on 31st March 1917 was Rs. 35,38,587.

Night navigation.

285. To facilitate night navigation an additional attended light was placed in the Gabtola Channel, the buoys were re-arranged, and an automatic tide gauge and electric semaphore apparatus, designed by Mr. Reaks, Officiating River Surveyor, were erected at Phuldhobi. Since February 1917 all lights have been extinguished under the orders of Government for reasons in connection with the defence of the Port.

Regulation of country boat traffic in the Port at night.

286. Early in the year it was brought to the notice of Government that the movement at night of sea-going vessels in the buoyed channel between Panchpara and Taktaghat was rendered increasingly difficult owing to country boats drifting in the channel showing no light. There was no Port rule governing the movement at night of these country boats. Under rule 4 of the Calcutta Port Rules vessels of burthen of 200 tons and upwards are prohibited from moving at night, subject to the conditions that vessels which have arrived at Garden Reach after dark are exempted from the operation of that rule. After consulting the Port Commissioners and the Bengal

National Chambers of Commerce, Government decided to add a sub-rule to rule 4 prohibiting country boats of under 200 tons burthen from moving at night within the Port unless showing the prescribed light, and on the flood tide in the channel referred to above, unless showing the prescribed light and in tow of a steamer the movement of which at night is exempted under rule 4.

Financial result.

287. The following table shows in detail the income and expenditure of the Trust during the year together with the figures of the past year.

	1916-17.				1915-16.				DIFFERENCE BETWEEN 1916-17 AND 1915-16.	
	Income.	Expenditure.	Nett Revenue.	Nett deficit.	Income.	Expenditure.	Nett Revenue.	Nett deficit.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Control	20,129	9,97 0 5	...	9,76,956	61,190	9,61.698	...	9,00,508	...	76,448
II.—Jetties ...	17,31,701	9,90,521	7,41,180	...	17,73,895	9,55,133	8,18,762	...	...	77,582
III.—Tea Warehouse ...	3,37,168	1,39,986	1,97,182	...	2,96,416	1,24,:51	1,72,165	...	25,017	...
IV.—Petroleum Wharf ...	4,16,879	24,206	3,92,673	...	4,24,789	38,108	3,86,681	...	5,992	...
V.—Inland Vessels Wharves	4,22,698	1,81,413	2,41,285	...	4155,1:3	1,75.869	2,79,264	...	...	37,979
VI.—Rentable lands and buildings.	8,13,632	1,40,095	6,73,537	...	7,99,557	1,39,393	6,60,164	...	13,373	...
VII.—Port	4,91,340	6,51,164	...	1.59,824	4.47,932	6.44,437	...	1,96,505	36.681	...
VIII.—Port Approaches ...	5,96,074	3,82,621	...	2,86,547	5,72,917	8,34,360	...	2,55,443	...	31,104
IX.—Railway	15,70,062	13,12,187	2,57,875	...	15,37,885	13,28,622	2,08,963	...	48,912	...
X.—Wet Docks	41,31,446	30,55,657	10,75,789	...	41,61,443	28,44,442	13,17,001	...	...	2,41,212
XI.—Dry Docks	2.38,060	80,867	1,57,193	...	2,46,686	73,068	1,73,618	...	...	16,425
XII.—Ferry Service	4,33,361	3,47,793	85,568	...	4.06,247	3,29,805	76,442	...	9,126	...
XIII.—River dues	16,60,582	...	16,60.582	...	18,04,357	...	18,04.357	...	...	1,43,775
XIV.—Special War Surcharges	26,60,897	...	26,60.897	...	26,97,683	...	26,97,683	...	...	36,786
Sale of unserviceable materials	54,844	...	54,844	...	62,449	...	62,449	...	...	7,605
Contribution from Howrah Bridge.	24,194	...	24,194	...	29,822	...	29,822	...	...	5,628
Interest on Revenue Reserve ...	81,577	...	81,577	...	81,577	...	81,577	...	...	...
Amount payable by Capital Account to Revenue Account, haulage and maintenance of rolling-stock including establishment employed on reclamation works charges le to capital.	38,788	...	38,788	...	69,778	...	69,778	...	...	30,990
Interest and Sinking Fund charges.	...	62,31,403	...	62,31,403	...	63,57,815	...	63,57,815	1,26,412	...
Contribution to Depreciation Fund.	...	2,00,000	...	2,00,000	...	1,00,000	...	1,00,000	...	1,00,000
Depreciation to Government Promissory Notes held in Revenue Reserve Fund.	...	3,96,740	...	3,96,740	...	...	...	...	...	3,96,740
Total ...	1,57,23,432	1,56,31,738	63,43,164	82,51,470	1,59,35,456	1,49,07,001	88,38,726	78,10,271	2,65,513	12,02,274

CHAPTER IV—PRODUCTION AND DISTRIBUTION.

Agriculture.

[Report on the Agricultural Department, Bengal, for the year ending 30th June 1917.]

Administration.

288. Mr. S. Milligan of the Imperial Agricultural Service was in charge of the Department throughout the year. Mr. Hector, Economic Botanist, was absent, on leave, throughout the year: Mr. McLean, Deputy Director of Agriculture, joined the Indian Army Reserve of Officers on the 5th October 1916, and Mr. Annett, Agricultural Chemist, was deputed to the United Provinces on special duty connected with the war on the 28th September 1916. The Director of Agriculture took charge of Mr. McLean's work, and Mr. Finlow, Fibre Expert, supervised the Departments of the Economic Botanist and Agricultural Chemist.

Agricultural Education.

289. On the 30th June 1917 there were 17 students from Bengal at the Sabour Agricultural College in Bihar: 4 in the first, 8 in the second and 5 in the third year classes. One student was successful in the Diploma Examination held in March 1917 and has been employed by the Agricultural Department, Bihar and Orissa.

Research and Experiment.

290. During the year small quantities of *kakya* Bombai jute seed and *indrasail* paddy seed were distributed in the Dacca and Mymensingh districts through panchayats to cultivators. The heavy yields of the above named two varieties and the growing demand for seed were mentioned in last year's report: this demand has been fully maintained and arrangements are being made for distribution on a larger scale in the coming year in the districts of Eastern and Northern Bengal. Other important work affecting the Eastern districts is the discovery of the manurial value of "water hyacinth," a weed which has become a source of serious obstruction to navigation, and has been found to contain a large proportion of potash. Mr. Finlow's investigations have already resulted in the sale of about 750 tons of hyacinth ash representing the destruction of about 75,000 tons of the green plant. During the year there was a growing demand in Eastern Bengal for sugarcane setts from the agricultural farms and for Darjeeling seed potatoes. There has also been a marked increase in the area under groundnuts in the Birbhum district. The *kataktara* variety of autumn rice has been proved to be a high yielder at the Dacca Farm, and sufficient seed is now available for preliminary trials in Western Bengal where it is expected to be suitable. Further knowledge has been obtained on the subject of *ufra*, the disease which causes serious ravages in the deep-water winter rice crop of several districts in the Dacca and Chittagong Divisions. It has been known for some time that this disease is due to a parasite called *Tylenchus Angustus* which is able to remain alive in the rice stubble during the interval between harvest and sowing: it has also been known that autumn rice, transplanted winter rice and *boro* rice, which is usually transplanted in December and January, are comparatively free from the disease. It has now been established that all kinds of rice are equally capable of developing the disease under favourable conditions, but that deep-water winter rice is particularly susceptible for two reasons: there is often a very short interval between the drying of the stubble of the old crop and the sowing of the new crop and the parasite is thus able to survive this interval, and the crop begins to mature at a season when the atmosphere is at its dampest, when the plants are particularly susceptible to the attacks of the parasite. During the year under review Mr. Shaw, the Imperial Mycologist, continued the investigation of *ufra*, and the Mycological Collector at Dacca was principally employed in connection with it: an Assistant Mycological Collector was employed for six months in surveying *ufra*-infected tracts in Faridpur and in a portion of Bakarganj district and large areas were found

to be infected. The Collectors of Dacca and Tippera in consultation with the officers of the Department conducted experiments in early ploughing and stubble burning in their districts : the results are inconclusive.

Cattle breeding.

291. The policy of the Rangpur Cattle Farm has been altered with the object of obtaining definite information within a reasonable time as to the respective merits of crossing with stock imported from other parts of India and grading up indigenous cattle of a definite type. No advance was made during the year in carrying out the new policy. At the close of the year under report the stock at the Farm included 73 cows, 2 bulls, 65 bullocks and 49 calves and young stock. The worst of the cows are gradually being weeded out and replaced by animals conforming to a definite type, but only 19 of the cows came up to the qualifying yield for admission to the herd of 1,000 lbs. of milk per annum.

Sericulture.

292. The Sericultural Branch of the Department continued to work on the same lines as in previous years. Babu A. C. Ghose, Superintendent of Sericulture, was in charge of the operations for the production of disease-free seed cocoons at central nurseries for sale to rearers, the supervision of the production of seed cocoons by selected professional rearers, the disinfection and structural improvement of village rearing houses, and the improvement of mulberry plantations. There was a marked advance in the price obtained for silk during the year and the Departmental receipts from the sale of seed cocoons increased from Rs. 16,828 to Rs. 28,737. The expenditure on the nurseries amounted to Rs. 91,361 which does not include interest on the outlay on buildings. Mr. Hutchinson, the Imperial Agricultural Bacteriologist, has published an important bulletin on pebrine disease from which it appears that the existing methods for detecting pebrine in the silk worm moth are of doubtful efficacy : arrangements have been made to try the new and more accurate method described by him. On the experimental side Mr. P. C. Chaudhuri continued at the Berhampore nursery the work initiated by M. Grangeon. Miss Cleghorn continued to rear on a larger scale the hybrid Italian-Japanese and *Nistari* race started in 1911.

Fisheries.

[Report on the Department of Fisheries, Bengal, and Bihar and Orissa, for the year ending 30th June 1917.]

Fisheries.

293. The Department of Fisheries was inaugurated as a separate Department towards the end of the year, and Mr. T. Southwell who, as Deputy Director of Fisheries, had formerly been subordinate to the Director of Agriculture, was appointed to be Director of Fisheries. Mr. Mohsin, one of the two Superintendents of Fisheries, resigned his appointment and his place has since been filled.

The two main problems of the Department are the increase in the production of fish and the organization of the trade in fish ; and increased attention was paid during the year to these problems of fishermen. The number of co-operative societies among fishermen has grown from 7 to 12. A co-operative society among a few fishermen in a large Government fishery in the Ganges was formed and an attempt was made to arrange for the sale of their catches in Calcutta without the intervention of middlemen. The financial results were very successful, for the fishermen received Rs. 14 a maund for their fish in place of Rs. 5, but the members of the society with whom the fishery was settled gave up fishing and sub-let the fishery to others.

During the year there was a considerable extension of the work of supplying carp fry for cultivation in tanks, the quantity supplied amounting to 6 lakhs of fry compared with 2½ lakhs in the previous year. The completion of the carp tanks at Delabagh in Arrah district will improve the supply of pure fry, and the success attained in the artificial cultivation of *catla* gives ground for hope that it will be possible to avoid the introduction of predatory fish which is the chief obstacle to the successful cultivation of fish in tanks. Investigation into the habits of *hilsa* was continued.

Statistics of fish imported into Calcutta show an increase in total imports of 44 per cent. over the maximum figure of any of the previous four years.

Weather and Crops.

[Season and Crop Report of Bengal for the year 1916-17 ; Crop Forecasts of Bengal for the year 1916-17 ; Agricultural Statistics of India, Volume I.]

Character of the season.

294. Unlike the previous year the season was dry at the outset and the sowing of *bhadoi* crops was in consequence retarded. Copious rainfall in the second week of April, however, improved the situation.

The rainfall in May was again in defect and this, combined with high temperatures, seriously affected the young crops and delayed the sowings of jute in the Western districts. Early rainfall in June, however, greatly improved the situation.

The rainfall in July was badly distributed throughout the Province, being in excess in Northern Bengal, below the normal in Eastern Bengal, and so deficient in Western Bengal as to seriously retard the transplanting of the winter rice crop.

In August, however, the rainfall was all that could be desired, facilitating agricultural operations and doing immense good to standing crops in general.

In September, October and November the rainfall was generally in excess of the normal. Damage to crops in varying degrees by floods, excess of rainfall and cyclonic weather was reported from nearly all the districts during this period.

The months of December and January were practically rainless to the detriment of the *rabi* crops which had already suffered from unseasonable rainfall in November. Good rainfall in February, however, improved the situation to some extent.

The season may be regarded as favourable for winter rice, fairly good for jute, and only fair for *bhadoi* and *rabi* crops.

The following table furnishes the estimated area and outturn in 1916-17 of *bhadoi*, *aghani* and *rabi* crops as compared with the corresponding estimates of the previous year :—

Name of harvests.	Normal area in acres.	Area cultivated during 1915-16 in acres.	Area cultivated during 1916-17 in acres.	Taking 100 to represent the normal outturn, how much represented the outturn for the year—	
				1915-16.	1916-17.
Bhadoi	9,037,450	8,801,900	8,551,000	82	74
Aghani (Winter rice.	16,622,500	15,105,100	15,667,400	97	94
Aghani Sugarcane	256,100	233,500	220,100	85	80
Aghani Other sugar-producing plants.	129,700	49,900	70,700	...	...
Rabi	5,999,750	4,844,500	4,708,600	75	81
Total ...	32,045,500	29,034,900	29,217,800	...	...

Bhadoi Crops (excepting jute).

295. The rainfall early in the season was insufficient for the proper preparation of the land for these crops. In consequence, sowings proceeded slowly until the second week of April when general rain facilitated operations. The weather in May was dry and the early sown crops suffered much in consequence. The rainfall in June, however, improved the situation and enabled further sowings to be made in the Western districts. The crops on

low-lands in Northern Bengal were greatly damaged by the excessive rainfall in July and the rise of the rivers did some damage in the Eastern districts. A cyclonic storm in the third week of September also caused considerable damage in most of the Western Bengal districts. The season may thus be regarded as only fair. The outturn of the different *bhadoi* crops of the Province has been returned as 74 per cent. of the normal against 82 per cent. of last year.

Jute.

296. Sowings were delayed in Eastern and Northern Bengal by deficient rainfall in February and March. Rainfall in April, however, considerably improved matters. In May the rainfall was again defective and this, combined with high temperatures, adversely affected the crop; but in June there was sufficient rain which did immense good and enabled further sowings to be made in Western Bengal. The late sown crop in the Western Bengal districts was greatly benefited by moderate rainfall in the latter part of July, followed by sufficient rainfall in August. On the other hand, the heavy rain which fell in July in Northern Bengal caused considerable damage on low-lands; the districts of Rangpur, Dinajpur, Jalpaiguri and Pabna being the greatest sufferers. In the Eastern districts the rainfall was not heavy; but jute on low-lying land was somewhat damaged by a sudden rise in the rivers. This, however, was not serious.

In August the rainfall was almost normal facilitating the steeping and washing of the fibre. The season may be regarded as a fairly satisfactory one for this crop. There was an estimated increase both in area and outturn over the previous year's returns of 265,551 acres and 923,809 bales, respectively.

Winter rice.

297. In the months of February and March the rainfall was inadequate for preparatory operations. The rainfall in April was, however, sufficient and facilitated the sowings of the broad-casted paddy. In May, the rainfall was, however, defective and consequently this crop suffered to some extent. In June, general rain fell throughout the Province and transplanting was commenced at the usual time. The progress of field operations was retarded in some of the Western districts by insufficiency of rain in July, while excessive rainfall and floods in the Northern districts caused some damage to the crop on low-lands. The rainfall in August greatly improved the condition of the crop. The cyclonic storm in September, the heavy rainfall thereafter in the Western districts, and the sudden rise of the rivers in the Eastern districts during the same period reduced the outturn on low-lands. On high-lands, however, a bumper crop was harvested. The Provincial outturn was returned as 94 per cent. as compared with 97 per cent. of last year.

Sugarcane.

298. Weather conditions were generally unfavourable owing to inadequate rainfall at the time of planting and a spell of drought thereafter. The crop suffered in its early stages, but conditions improved with the rainfall in June. The crop, however, suffered severe damage later from excessive rainfall and floods in Eastern Bengal and from cyclonic storms in Western Bengal. The outturn for the Province works out to 80 per cent. of the normal against 85 per cent. of last year.

***Rabi* crops.**

299. The rainfall in the months of September and October was much in excess of the normal, consequently sowings were not completed in proper time. Untimely heavy showers during the first part of November interfered with further sowing and caused some damage to the young crops in areas already sown. This was followed by a period of drought which extended up to the end of January, further affecting the growth of the crops. The rainfall in February, however, did some good. The outturn of the *rabi* crops of the Province as a whole has been returned as 81 per cent. of the normal against 75 per cent. of last year.

Cotton.

300. The condition of the early crop was unsatisfactory in the Chittagong Hill Tracts, Hill Tippera and Midnapore owing to excessive rainfall and flood in September and October, but was, generally speaking, fair in Bankura and Mymensingh. The condition of the late crop was reported to be fair on the whole. The estimated outturn of the early variety worked out to 18,849 bales as against 28,567 bales reported last year, while the outturn of the late crop was estimated at 1,068 bales as against 1,173 bales.

301. The total cropped area was returned at 29,217,800 acres against 29,034,900 acres for the previous year. Figures for the principal crops are given in the following table :— **Area under cultivation.**

Name of crops.	Normal area in acres.	Area cultivated during 1915-16 in acres.	Area cultivated during 1916-17 in acres.
Rice	22,024,600	20,945,400	21,091,000
Other food grains (including Marua and pulses).	2,460,700	1,293,400	1,745,600
Jute	2,643,800	2,086,300	2,351,800
Oil-seeds	1,970,600	1,794,400	1,655,400
Tobacco	408,800	319,800	311,900
Sugarcane	256,100	233,500	220,100

302. Owing to a better harvest and restricted shipping the prices of rice fell off substantially. The jute market continued steady and the prices advanced a little. The price of winter rice varied from Rs. 3-13 per maund at Burdwan and Murshidabad to Rs. 5-8 per maund at Mymensingh, and that of *autumn* rice from Rs. 3-9 per maund at Rajshahi to Rs. 5-15 per maund at Dacca. The price of Jute of good quality did not generally exceed Rs. 9 per maund. **Prices.**

Co-operative Societies.

[Report on the working of Co-operative Societies in Bengal for the year 1916-17. Statistics of British India, Part II—Commercial.]

303. The following table shows the expansion of the movement during the year :— **Development.**

	Societies.		Membership.		Working Capital.	
	Last year.	This year.	Last year.	This year.	Last year.	This year.
					Rs.	Rs.
Central Banks ...	39	47	5,368	6,668	46,49,377	58,89,950
Agricultural	2,067	2,857	94,074	110,961	56,94,370	67,06,570
Non-agricultural ...	125	169	22,214	25,582	21,04,826	25,64,868
Supervisional Unions ...	12	13	177	237	...	...
Total ...	2,243	3,086	121,833	143,448	1,24,48,573	1,51,61,388

304. The present policy of the Department is not to encourage the formation of new rural societies except in areas in which there is a Central Bank to which they can be affiliated, and thereby to minimize the danger of making a bad start on account of inadequate control. The appointment of paid Secretaries in four more Central Banks is a step in the right direction towards improving the control of these Banks over their affiliated societies. It is essential that societies should realize their own responsibilities in respect of punctual collection of dues and should not expect this work to be done for them by Government Inspectors. **Central Banks.**

305. Owing to financial reasons no progress was made during the year with the scheme for the inauguration of a Provincial Bank, but the business of financing Central Banks with deposits made by residents of Calcutta has grown to such an extent as to necessitate a proper machinery for its control. A scheme for a Provincial Federation of Central Banks is under consideration; the Federation is intended to provide this machinery without making any attempt to attract large quantities of new capital which are more urgently needed for other purposes. **Provincial Co-operative Bank.**

306. The number of agricultural societies registered during the year was 817 and the number of societies rose from 2,067 to 2,857, of which 2,500 were **Agricultural Societies.**

affiliated to Central Banks. The combined working capital of these societies rose from Rs. 57 lakhs to Rs. 67 lakhs, an increase of about 18 per cent. There has been an increase in the percentage of overdue loans, but although this is not a satisfactory feature, it is not alarming in view of the fact that the Central Banks generally endeavoured to get good collections from societies. Attention is, however, being paid to the enforcement of punctuality in repayment. Among the societies of special types the Khelar Irrigation Society in the district of Midnapore, which was formed towards the close of the previous year, has had a successful year.

Non-agricultural Societies.

307. The number of non-agricultural societies increased from 125 to 169 and their working capital from Rs. 21 lakhs to nearly Rs. 25¾ lakhs. The number of weavers' societies has increased from 17 to 34, and that of the fishermen's from 7 to 16. Among the limited liability societies, the Tantibund Society in Pabna, under able management, achieved successful results.

The Departments of Agriculture and Co-operation held several joint conferences at which practical schemes for spreading agricultural improvements were discussed. Their joint efforts were largely devoted to the extension of potato cultivation; the extensive use of manures in the future depends largely on the joint efforts of the two Departments.

Horticulture.

(Annual Report of the Royal Botanic Garden and other gardens in Calcutta and of the Lloyd Botanic Garden, Darjeeling, for the year 1916-17.)

The Royal Botanic Garden, General.

308. Cold weather annuals were not sown until there was evidence of normal weather conditions setting in, and in consequence the seedlings suffered much less from damp than was usual in gardens in the Presidency; the subsequent display of flowers being profuse. In consequence of a cyclone which passed over the Calcutta district on the 21st September, the Sibpur Gardens suffered much material damage. During the year the revetting of the river bank was continued, the Kyd avenue was thoroughly overhauled for a distance of about 500 yards, and the preparation of the ground for the Economic Garden was completed.

Plant and seed distribution.

309. About 65,000 plants and 969 packets of seeds were distributed, including 80 lbs. sent to the Arboricultural Expert for the new capital at Delhi. Six hundred and fifty plants went to that capital and 2,937 to the Government of Bihar and Orissa for Bankipore and Ranchi. One hundred and eighty-seven packets of seeds were received exclusive of the supply of two barrels of Mahogany from the Royal Gardens, Kew, and six bags of palm seed from Pashok.

Herbarium and Library.

310. The number of specimens received was up to the annual average, the same collectors as in past years continuing to supply the material. Between 2,000—3,000 sheets were distributed mainly to the Indian Herbaria. Two hundred and eighty-nine books were added to the Library.

Publication.

311. No purely garden publications were issued during the year.

Calcutta Gardens.

312. Work in these gardens was of a routine character. Like other gardens in the district, they suffered considerably from the September cyclone.

Lloyd Botanic Garden, Darjeeling.

313. The collections of plants, both in pots and in permanent quarters were maintained in good order and 404 species previously unrepresented in the collections were planted out. Eleven thousand five hundred and ten plants, 5,173 dozen seedlings, 908 bulbs and tubers, and 4,172 packets of seeds were distributed during the year. There were more than 50,000 visitors to the garden during the year.

Cinchona Plantations and Factory.

(Report of the Government Cinchona Plantations and Factory for the year 1916-17.)

Plantations.

314. The total area with a full complement of Cinchona on the Mungpoo and Munsong plantations was 2,405½ acres as compared with 2,295 acres in

1915-16. The estimated total number of trees was 4,936,220, being 4,277,950 on Munsong and 658,270 on Mungpoo. During the year the harvest yielded 499,417 lbs. of bark as compared with 569,337 lbs. in the preceding year. A large number of Cinchona trees have arrived at maturity but owing to insufficiency of funds the harvesting of the bark was restricted.

315. The total quantity of bark worked up in the Quinine Factory was 459,600 lbs. against 960,570 lbs. in 1915-16, and the quantity of quinine sulphate produced amounted to 20,903½ lbs. against 41,814½ lbs. in the previous year. In addition, 1,400 lbs. quinodine, 118 lbs. 2 ozs. cinchonidine sulphate and 123 lbs. cinchonine sulphate were manufactured. The quinine reserve at the close of the year was 131,976 lbs. 11 ozs. against 165,000 lbs. in the previous year. The reserve is valued in the stock account at Rs. 34,97,382-3-6. **Outturn.**

Forests.

[Forest Administration Report for the year 1916-17. Statistics of British India, Part IV (b)—Finance and Revenue].

316. There was a change in the area of the reserved forests under the Forest Department due to the inclusion of 10,897 acres in the Darjeeling, Kurseong and Buxa Forest Reserves. The work of demarcation has been completed in the Chittagong Forest Division. No new working plans were sanctioned during the year. **Administration.**

317. Twelve miles of cart roads, 23 miles of bridle-paths and 5 miles of foot-paths were constructed during the year. The total expenditure on communications amounted to Rs. 22,675 against Rs. 25,500 in the previous year. **Communications and Buildings.**

The total expenditure on new buildings and repairs amounted to Rs. 34,776 against Rs. 28,949 in the previous year.

New offices, Range officers' quarters and quarters for guards were constructed at Teknaf and Jaliapalong in the Chittagong Forest Division during the year to replace those destroyed by a cyclone in May 1916.

318. There was an increase in the total number of forest offences reported during the year, the number being 2,642 against 2,351 in the previous year. There was an increase of 129 offences in the Chittagong Division. **Forest Offences.**

319. The area in which fire protection was attempted during the year comprised 368,983 acres and the percentage of successful protection was 97·7. The cost per square mile was Rs. 7-7 against Rs. 10-8 in the previous year. The area burnt over amounted to 8,290 acres against 5,468 acres in the previous year. The increase was due to the occurrence of three big fires in the Buxa Division. In 14 out of 40 cases the causes of the fires could not be ascertained. **Protection from fires.**

320. There was no change in the area open to grazing. The number of cattle impounded during the year was 5,226 against 4,778 in the previous year, and 3,807, the average for the last three years. The increase was in the Buxa and Chittagong Divisions, and was due to the improved patrol work done by the forest subordinates, and in Buxa to the presence of many Nepalese *goalas* from Assam. **Protection from cattle.**

321. During the year a lease for five years was granted to Mr. C. T. Grenon of Calcutta for the collection in the Sundarbans Division of Hantal leaves (*Phœnix paludosa*), Bhola fibre (*Hibiscus tiliaceus*), and Dhani grass (*Oryza sativa* and *coarctata*) to be used for manufacture of paper. The scheme for exploiting cane on a four-year rotation in the Buxa Forest mentioned in last year's report has worked satisfactorily. **Exploitation.**

Minor forest produce continued to be disposed of generally under permits at fixed rates.

The revenue from *golpatta* rose from 1¼ lakhs to over 1½ lakhs owing to the more extensive use of this material for roofs on account of the stoppage of the import of corrugated iron sheets.

Last season's Khedda operations, conducted under agreement by Babu Kamala Kanta Bhattacharyya, in the Kalimpong and Kurseong Forest

Divisions, resulted in the capture of 32 elephants. In Chittagong Munshi Osi Meah captured 19 elephants. During the year Khedda operations were also conducted by the Forest Department on a small scale in the Buxa Division. The results of the operations were satisfactory.

Mortality caused by wild animals.

322. The number of persons reported to have been killed by tigers in the Sundarbans was 19 against 60 in the previous year and 86, the average of past five years. The number of tigers killed during the year was 48.

General.

323. The scheme mentioned in last year's report for the enlargement of the Kurseong Forest School has been abandoned as it has been decided that students for the Rangers Service course shall, as before, be sent to the Imperial Forest College at Dehra Dun for training.

Proposals for strengthening the controlling staff of the Forest Department of the Province were submitted to the Government of India during the year.

The provisions of the Wild Birds and Animals Protection Act, 1912 (VIII of 1912), were extended to the Chittagong Hill Tracts during the year.

In Kurseong observations on the spread of the *sâl* root fungus were continued. The fungus plots in the Jalpaiguri Division were inspected at intervals throughout the year by the Divisional Forest Officer, and the changes in the plots were reported to be very slight. In the Buxa Forest Division the fungus observation plots were twice inspected during the year and the results, recorded. Mr. Shaw, the Imperial Mycologist, paid visits to Rajabhatkhawa in connection with his investigation of the fungus.

Financial results.

324. The results of the year's working were satisfactory. The total revenue increased from Rs. 11,74,795 in 1915-16 to Rs. 14,33,555. It is, however, a little less than the average of the previous five years. There was a slight increase in the expenditure, the amount being Rs. 6,29,153 against Rs. 5,90,843 in the preceding year. The surplus amounted to Rs. 8,04,402 against Rs. 5,83,952 in 1915-16: the average surplus of the five years prior to the war was Rs. 8,18,301.

Manufactures and Mines.

[Statistics of British India, Part I.—Industrial.]

Jute.

325. With the recovery of prices which had dropped suddenly after the declaration of war and with the restoration of confidence amongst growers the area under jute increased from 2,086,821 acres with an outturn of 6,506,066 bales in 1915 to 2,351,821 acres with an outturn of 7,429,875 bales in the year 1916. Seventy-one jute mills were at work during the year, against 66 in 1915, employing daily on an average 260,199 operatives, an increase of 12,349. The number of looms and spindles working in these mills was 39,404 and 817,759, respectively, as against 38,942 and 792,591 in 1915. The nominal rupee and sterling Capital employed was Rs. 10,63,71,000 and £2,138,358; and the paid-up Capital Rs. 9,35,05,800 and £2,138,358.

Cotton.

326. The number of cotton mills at work during 1916 was 13 as in the previous year: the number of persons daily employed was 9,781 against 11,641 in 1915. The number of looms and spindles was 2,546 and 355,816, respectively. The nominal Capital employed was Rs. 1,28,00,000 and £200,000.

Tea.

327. The area under tea in 1916 was 165,800 acres and the quantity of tea manufactured was 92,644,990 lbs. compared with 89,526,057 in 1915. There were 301 plantations employing a daily average of 106,305 permanent and 26,207 temporary hands.

Coal.

328. The number of coal mines worked during the year 1916 was 169, or seven less than in the previous year. The total output, however, rose from 4,975,460 tons in 1915 to 4,992,376 tons. The daily average number of persons employed both above and below ground, also increased, being 43,040 against 42,093.

Labour was plentiful until September when a severe malaria epidemic and an exceptionally good harvest led to a general decrease in the number of workers coming into the mines.

329. No iron was raised during the year, the reason attributed being that the ore from the Kulti Iron Works was unsuitable for the class of iron required and was not economical to work. The output of the previous year was 2,243 tons and was valued at Rs. 5,545. **Iron ore.**

330. The quantity of refined saltpetre produced during the year was 7,534 maunds against 3,139 maunds in the previous year. The increase was due to greater demand for saltpetre on account of the war. The quantity of salt educed in the process of refinement of saltpetre was 42 maunds as compared with 40 maunds in 1915-16. **Saltpetre and salt.**

331. There were three paper mills at work during the year 1916 employing 3,879 persons daily against 3,573 in 1915. These mills produced 26,838 tons of paper valued at Rs. 1,08,16,000 during the calendar year 1916. **Paper.**

332. During the year 1916 only one silk factory worked in this Presidency employing a daily average of 83 operatives against 50 in the preceding year. There were also 8 silk mills at work employing 3,453 persons, besides 47 smaller establishments which gave employment to about 3,500 people. Nearly 10,100 *kahons* (12,928,000) of disease-free seed cocoons were distributed from Government nurseries. **Silk.**

333. The acreage under sugar crops increased from 283,400 in 1915-16 to 290,800 in 1916-17. The only regular sugar factory in the Province is the Cossipore Sugar Works. **Sugar.**

334. Two woolen mills were at work during the year 1916 employing 215 persons, against the same number of woollen mills and 230 operatives in 1915. The number of looms and spindles was 26 and 888, respectively. These mills produced 384,128 lbs. of blankets valued roughly at Rs. 4,60,500. One of these factories is a Government owned and the other a private concern. **Wool.**

MISCELLANEOUS MANUFACTURES IN EACH DIVISION.

[Land Revenue Administration Report for 1916-17.]

335. The coal mines and the factories in the Burdwan district and the mills and factories in the Hooghly and Howrah districts, had a prosperous year. The minor industries, such as silk, *tasar* and cotton-weaving, brass and bell metal manufactures, in all the districts of the Burdwan Division, were depressed owing to the difficulty in procuring raw materials. There has been some expansion of mulberry cultivation and silk-weaving in Birbhum, owing to the rise in the price of silk caused by the war. The number of rice mills in Burdwan is increasing. **Burdwan.**

336. The Commissioner of the Presidency Division reports that the war has affected economic progress in many complex ways. The stoppage of the supply of sugar from abroad gave an impetus to the sugar industry in the Basirhat subdivision of the 24-Parganas where some ten factories were started, all of which did good business. In Murshidabad there was a slightly better demand for local silk than in the preceding year. The Comb Factory at Jessore is said to promise well now that the Superintendent is in a position to make his own celluloid. A branch of the Bengal Home Industries Association has recently been started in the Jessore district. **Presidency.**

337. The three oil mills at Jhalakati, Nalchiti and Bhola in the Bakarganj district, continue to work, but are handicapped to some extent by the difficulty in procuring old kerosine oil tins for storage of oil. The whole outturn is consumed locally. Owing to the rise in the price of sugar, the cultivators of Bakarganj are now alive to the advantage of using date sugar and they tapped most of their trees during the last cold weather. In Faridpur, molasses were extensively prepared from date juice and sugarcane as in previous years. **Dacca.**

338. In Chittagong, a large brig with a carrying capacity of 22,000 maunds was built and launched during the year and has since been sent to Ceylon. The cotton ginning mill, the Shalimar works of Messrs. Turner, Morrison & Co., the tinning factory of Messrs. Jamal Brothers and the Burma Oil Company worked as usual during the year. Jute baling is the most **Chittagong.**

important and prosperous industry in the district of Tippera. There is a large export trade in fish at Ashuganj in the Brahmanbaria subdivision. Export of jute and betelnuts was a lucrative business in the district of Noakhali, but the export of poultry and eggs suffered considerably owing to the difficulties in transport. The *khuiye* (betelnut leaves) industry flourished. A manual training class has been started in connection with the High English School in the Chittagong Hill Tracts and the Collegiate School at Chittagong.

Rajshahi.

339. In the Rajshahi Division there is very little organized industry except in the case of tea, which is confined to the districts of Jalpaiguri and Darjeeling. The crop was good, and the industry did well, but suffered somewhat owing to the want of facilities for export. The ganja manufacture in Naogaon gave employment as usual to both skilled and unskilled labour. Owing to the high price of silk, the spinning industry in Malda flourished throughout the year. In Rajshahi there are only two small factories for reeling silk cocoons, while in Bogra the silk industry is confined to a small number of people in and around Bogra town. The nursery at the Government Sericultural Farm which supplies seed-cocoons to the nurseries at Malda, Murshidabad, Birbhum and Rajshahi as well as to local rearers is reported to be doing good work. The rice mill at Hilli made a fair profit. The Deputy Commissioner of Darjeeling reports that in the Terai one rice and oil mill and two rice mills worked satisfactorily.

Working of the Indian Factories Act, 1911 (XII of 1911).

[Annual Report on the above mentioned Act in Bengal for the year 1916. Statistics of British India, Part I.—Industries.]

Number of factories and system of work.

340. There were 492 factories at the close of the year against 383 in 1915. The exceptionally large increase was due chiefly to the fact that all factories situated within the town of Calcutta and in the districts of the 24-Parganas and Howrah, and employing not less than 20 persons on any day simultaneously were declared to be factories within the scope of the Indian Factories Act. The daily average number of operatives employed during the year was 407,318 as compared with 378,235 in 1915. In 83 factories work was carried on by means of shifts and in 148 with stoppages after intervals of six hours; 75 factories were exempted under Part C, Schedule I of the Act and in 180 factories other arrangements were in force. Six factories remained closed throughout the year.

Inspection.

341. One thousand one hundred and sixty-six inspections were made by the wholetime Inspectors. Two hundred and seventy factories were inspected once, 60 twice, 16 three times, 92 more than three times, and 48 were not inspected. The largest number of inspections were made in Calcutta and the districts of the 24-Parganas, Dacca and Howrah.

Sanitary and housing arrangements, water-supply, etc.

342. Progress continued to be made in the betterment of conditions in factories. A number of septic latrines were substituted for service latrines, the defects in which have been commented upon for some years past: and a revised standard plan of service latrines for factories within municipal areas is under consideration. Dwelling accommodation was provided for 100,000 workers by the larger textile factories alone as compared with 80,000 in 1915. The water-supply generally was satisfactory. The Naihati Jute Mills improved their installation by putting in additional filter beds and the Lansdowne Jute Mills erected and brought into use complete new filter plant with settling tanks.

General health of operatives.

343. The general health of operatives was good during the year, and there was no serious sickness in epidemic form, although some cases of small-pox occurred in the Lower Anglo-Indian Jute Mills and malarial fever was prevalent in the Naihati Jute Mills.

Wages and general condition.

344. There was no noticeable change in the rates of wages and the general condition of mill operatives was satisfactory during the year.

345. In the case of jute mills engaged in the manufacture of sand bags for military purposes the rules relating to the employment of women and children continued to be relaxed. Elsewhere the rules were rigorously enforced. Twenty-five thousand five hundred and forty-three children were certified under section 7 of the Act by the several Certifying Surgeons of Factories. The wholetime Certifying Surgeon of Factories, Barrackpore, alone certified 12,517 children. **Employment of women and children.**

346. The total number of accidents reported during the year was 1,482 against 1,293 in 1915; of these 70 were fatal, 601 serious and 811 minor. The increase was partly due to increased activity of trade and the consequent employment of a larger number of unskilled and semi-skilled labourers in textile and munitions factories and partly to the more regular submission of accident reports. The increase is, however, only ·02 per cent. of the average number of operatives employed in factories. **Accidents.**

347. The problem of the efficient fencing of machinery continued to receive attention from the inspecting staff, and the proportion of accidents due to inadequately fenced machinery was not large. **Fencing of machinery.**

348. Seven prosecutions were instituted in all of which convictions were secured, resulting in the punishment of nine persons. **Prosecution.**

349. Four serious fires occurred in jute concerns and one in a shellac factory—causing damages estimated at about Rs. 5¾ lakhs. **Fire.**

350. There were two temporary strikes for a change of working hours and a third for increased wages. **Strikes.**

Trade.

[Report on the Maritime Trade of Bengal for 1916-17—Annual Statement of the Sea-borne Trade and Navigation of the Bengal Presidency—Annual Statement of the Sea-borne Trade and Navigation of British India with the British Empire and Foreign countries—Annual Statement of the Coasting Trade and Navigation of British India. Statistical Abstract of British India, Vol. I—Commercial Statistics.]

I.—FOREIGN SEA-BORNE TRADE.

[Report on the Maritime Trade of Bengal for 1916-17.]

351. In the third year of the war the trade of the Province progressed once more in value, and marked an aggregate increase of Rs. 19·45 crores, or 11 per cent. above that of the previous year and 6 per cent. above the quinquennial average. The value of the foreign trade constituted a record while the coasting trade was ·5 per cent. below the quinquennial average. Foreign trade imports expanded in value by Rs. 11·47 crores or 20 per cent. and exports to the extent of Rs. 5·10 crores or 6 per cent. In addition to shortage of tonnage, exchange difficulties from December onwards affected trade and, with indeterminate losses due to enemy agency, caused a general and in some instances an excessive rise in the cost both of raw materials and manufactured articles. Calcutta absorbs about 95 per cent. of the foreign trade, the balance belongs to Chittagong. The following figures (in thousands of rupees) show the extent to which the foreign trade of the Province is centred in the chief Port, Calcutta :— **Foreign Trade.**

Merchandise.	Province	Calcutta.	Chittagong and its sub-Ports.
	Rs. (In thousands.)	Rs. (In thousands.)	Rs. (In thousands.)
Imports ...	56,56,87	56,11,21	45,66
Exports ...	96,45,78	92,67,00	3,78,78

The trade of the Port of Chittagong is made up chiefly of exports of tea and raw jute.

352. The effect of the war upon the volume and value of gold and silver imported on private account was very marked though Government purchases were very considerable. The net imports of gold rose from Rs. 1·07 to Rs. 1·44 crores or 35 per cent., but of silver fell from Rs. 1·68 crores to Rs. 19·97 lakhs or by 88 per cent. Calcutta's share of the imports of treasure into British India was only 12 per cent. **Treasure.**

Imports of Merchandise.

Principal articles imported into Calcutta.

353. The following table shows the comparative importance of the principal articles imported into Calcutta :—

	Average value for the 5 years. 1909-1910 to 1913-1914.	1914-1915.	1915-1916.	1916-1917.	Percentage of proportion to total imports of merchandise.	Difference between 1915-1916 and 1916-1917. Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Cotton goods	24,50,83,600	24,58,66,056	20,55,63,686	23,20,49,993	41·35	2,64,86,307	...
Sugar	5,66,66,858	4,84,77,886	7,28,10,353	6,50,95,047	11·60	...	77,15,306
Metals and ores	6,73,94,372	5,60,73,456	4,75,96,530	4,47,40,973	7·97	...	28,55,557
Machinery and millwork ...	2,15,13,063	2,32,70,996	2,02,21,960	2,46,36,366	4·39	44,14,406	...
Oils	1,67,74,610	2,11,15,377	1,89,79,256	2,06,46,111	3·68	16,66,855	...
Salt	59,68,637	53,76,926	1,45,21,156	1,37,58,932	2·45	...	7,62,224
Hardware, excluding cutlery and electroplated ware.	1,12,85,712	96,83,944	93,58,486	1,17,83,981	2·10	24,25,495	...
Tea-chests, entire or in sections	33,64,246	34,79,594	71,03,074	75,37,322	1·34	4,34,248	...
Instruments, apparatus and appliances.	57,54,378	54,49,582	55,61,112	74,33,874	1·33	18,72,762	...
Spices	65,40,348	71,37,010	75,63,736	74,18,657	1·32	...	1,45,079
Liquors, including methylated and perfumed spirits	63,26,815	56,13,775	58,68,659	71,50,271	1·27	12,81,612	...
Provisions and oilman's stores	58,28,180	62,23,428	60,25,796	71,49,461	1·27	11,23,665	...
Motor-cars and motor-cycles and parts thereof.	32,94,344	36,10,736	41,83,217	69,33,758	1·24	27,50,541	...
Chemicals and chemical preparations.	37,55,093	41,68,125	56,03,728	67,70,043	1·21	11,66,315	...
Paper and pasteboard ...	35,29,023	39,47,589	40,99,316	63,55,603	1·13	22,56,287	...
Glass and glassware ...	51,10,431	36,39,621	41,01,817	57,26,708	1·02	16,24,891	...
Drugs and medicines (excluding chemicals and narcotics).	37,16,417	39,38,907	44,79,282	50,40,322	·90	5,61,040	...
Articles imported by post ...	27,94,746	23,45,061	29,49,789	44,32,604	·79	14,82,815	...
Railway plant and rolling stock	2,09,41,005	4,47,65,850	1,22,32,440	43,43,607	·77	...	78,88,833
Tobacco	27,45,291	26,09,166	31,71,646	42,20,708	·75	10,49,062	...
Rubber	8,33,107	27,30,180	46,52,691	40,82,993	·73	...	5,69,698
Paints and painters' materials	27,89,029	33,20,625	28,25,468	37,35,670	·67	9,10,202	...
Woollen goods	76,40,562	44,97,991	26,89,286	37,05,789	·66	10,16,503	...
Matches	25,79,515	30,02,425	37,88,793	35,48,686	·63	..	2,40,107
Building and engineering materials.	28,00,475	35,17,740	42,62,326	35,03,897	·62	...	7,58,429
Haberdashery and millinery ...	36,51,902	24,00,593	23,14,559	31,82,000	·57	8,67,441	...
Paper making materials ...	11,46,315	12,65,265	17,96,018	30,28,921	·54	12,32,903	...
Flax	15,66,204	18,51,051	17,03,793	28,16,772	·50	11,12,979	...
Wood and timber	18,26,082	22,09,575	16,02,025	23,86,188	·43	7,84,163	...
Stationery (excluding paper)	15,57,851	14,23,399	16,58,904	22,41,128	·40	5,82,224	...

In the aggregate the value was very slightly lower (·17 per cent.) than that of 1914-15, but higher by ·49 per cent. than the figures of the quinquennial period. The more important imports have been separately dealt with in the following paragraphs :—

Cotton Manufactures.

354. Imports of grey yarns showed a decline in quantity of 844,000 lbs. from those of the previous year or nearly 20 per cent., while coloured and fancy yarns declined 12 per cent., from 4,824,000 lbs. to 4,248,000 lbs.

An analysis of the figures shows a fall from the preceding year of 252½ million yards in grey piecegoods, while coloured and white goods increased by 31 and 30 million yards, respectively. The notable set-back shown in the latter in the previous year was recovered, while grey goods were subjected to greater competition on the part of Japanese and indigenous productions. The total yardage of all kinds declined as compared with the preceding year from 1,167 million yards to 975 million yards or 16½ per cent. The smart decline of cotton hosiery noted in the preceding year's figures was recovered ; the total was Rs. 29·59 lakhs in 1915-16 against Rs. 74·67 lakhs in the past year. Japan was the greatest contributor with an increase of Rs. 43 lakhs or 161 per cent.

Sugar.

355. Less refined sugar came to Calcutta from Java (there was no unrefined) and the tonnage fell by 13 and the value by 7 per cent. From Mauritius imports were much reduced by 42 and 38 per cent., respectively, but the Calcutta trade with that island has been small in recent years. From China and Japan the volume fell by 64 and 57 per cent., respectively. The average price for Java sugar in the past year rose from Rs. 15-3-9 to Rs. 16-5-3 per cwt. In May 23 D. S. and over was quoted at Rs. 18-2 per cwt. and by November it stood at Rs. 20-8 ; but in January it fell to Rs. 19-1 and the year closed at Rs. 19-6.

The arrivals of molasses in the past year fell by 26 per cent. in volume ; 97 per cent. came from Java and practically the whole of the balance from Mauritius.

Metals.

356. The contraction in Calcutta's trade in metals was even more upset by the war than in 1915-16. High prices and more recently the necessity of obtaining priority certificates reduced indents to the lowest possible requirements. In the United Kingdom the quantities of most metals

available for ordinary commercial purposes have been very greatly reduced, and the result in India has been to postpone all new work that was not really urgent, and to hamper existing construction by the shortness and uncertainties of supplies. The actual decrease in the trade is equivalent to 42 per cent. in weight, but owing to the high prices ruling, values have only declined by 6 per cent.

Machinery and millwork.

357. A considerable increase took place in imports under machinery and millwork (excluding railway materials) so far as the value is concerned, which rose by 22 per cent. from Rs. 2·02 to Rs. 2·46 crores: but owing to high prices of material, an exact quantitative comparison with the previous year's figures would probably show a considerable decrease. Of these imports 92 per cent. came from the United Kingdom, an expansion of 20 per cent., the United States sent 5 per cent. or a rise of 82 per cent., and Japan with Rs. 6·17 lakhs claims an increase of 53 per cent.

Mineral oil.

358. Imports fell in gallonage by 4 per cent., but owing to considerably enhanced prices, the aggregate value exhibited an increase of 9 per cent.

Foreign oils declined by 15 per cent. in volume, but higher rates caused the value to record an advance of 9 per cent. In fact, the main features of the previous year were reduced supplies and enhanced prices for such as were available.

The shortage in the foreign mineral oil-supply was made good by large arrivals from Burma. Imports into Calcutta expanded by 4 per cent. in volume to 56 million gallons, constituting a record, while the value increased by 9 per cent. Against an increase of 3 per cent. in kerosine oil may be set an equal decline in the quantity of lubricating oil imported. Candles dropped from 1·55 to 1·11 million pounds. The quantity of petrol received from Burma rose from 1·02 to 1·64 million gallons and Calcutta had to rely for the first time upon this source for all her supplies.

Salt.

359. The total imports during the year and the stocks at the *golas* at the close of the year were lower than in former years, owing to the high price of all salt, the principal supplying countries being the United Kingdom, 2,545,103 ; Spain, 1,425,008 ; Port Said, 2,333,483 ; Aden, 1,917,243 and Massowah, 1,028,899 maunds.

Hardware and Cutlery.

360. The value of the hardware and cutlery imported rose from Rs. 99·74 lakhs to Rs. 1·24 crores or by 24 per cent., and thus nearly reached the level of pre-war trade. It is probable, however, that the volume has, if anything, declined. Hardware was responsible for 95 per cent. of the total, cutlery for 4 and electroplated ware for 1 per cent. From the United Kingdom the trade was valued at Rs. 75·63 lakhs, an increase of 9 per cent. ; from the United States at Rs. 26·49, an increase of 50 per cent. ; from Japan at Rs. 15·61 lakhs, an increase of 99 per cent., and from Sweden at Rs. 2·38 lakhs. Under hardware the more important headings were lamps (metal and glass), Rs. 16·74 lakhs ; implements and tools, Rs. 11·25 lakhs ; agricultural implements, Rs. 9·49 lakhs ; builders' hardware, Rs. 7·72 lakhs, and enamelled ware Rs. 5·42 lakhs.

Glass and Glassware.

361. The value of glassware rose by 40 per cent. from Rs. 41·02 to Rs. 57·27 lakhs. The United Kingdom sent glassware to the value of Rs. 11·07 lakhs, an advance of 23 per cent. Calcutta's chief trade was with Japan, the value being Rs. 39·82 lakhs or an advance of 57 per cent. In 1906-07 Japan's trade for the 12 months was worth only Rs. 18,932.

Import trade of Calcutta with other countries.

362. The following statement shows how the import trade (merchandise only) of Calcutta with foreign countries was distributed :—

	1915-16. Rs. (lakhs).	1916-17. Rs. (lakhs).	1915-16. Per cent. of total.	1916-17. Per cent. of total.
United Kingdom ...	3,409	3,576	65·2	63·8
Other British possessions	303	291	5·8	5·0
Java	685	625	13·1	11·1
United States ...	268	366	5·1	6·5
Japan	224	423	4·3	7·5
Italy	60	59	1·1	1·0
France	28	30	·5	·5
Total imports (including other countries)	5,233	5,608	100	100

Exports of Merchandise.

Foreign trade.

363. The following table gives the values of the more important products in the export trade of Calcutta and their comparative importance :—

	Average for the 5 years, 1909-10 to 1913-14.	1914-15.	1915-16.	1916-17.	Percentage of proportion to total merchandise exported.	DIFFERENCE BETWEEN 1915-16 AND 1916-17.	
						Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jute manufactures	20,17,56,549	25,77,41,610	37,90,44,794	41,49,73,870	45·00	3,59,29,076	...
Jute, raw	19,84,43,720	11,82,88,502	14,88,91,502	15,35,86,740	16·66	46,92,238	...
Tea	8,96,12,790	11,43,52,153	14,66,73,307	11,66,26,560	12·65	...	3,00,46,747
Hides and skins, raw	7,59,54,271	5,30,14,475	6,27,37,202	6,80,64,288	7·38	53,27,086	...
Lac	2,16,19,160	1,59,40,983	1,71,23,260	2,79,86,544	3·04	1,08,63,284	...
Opium	6,37,91,756	1,76,34,585	1,47,01,840	2,09,65,180	2·27	62,63,340	...
Seeds	4,92,07,113	3,62,69,022	1,59,31,122	1,85,52,787	2·01	26,21,665	...
Grain, pulse and flour	8,13,60,916	3,32,01,122	2,04,25,143	1,52,51,577	1·65	...	51,73,566
Metals and ores	36,43,472	41,75,786	57,58,846	1,19,45,448	1·30	61,86,602	...
Cotton, raw	1,23,30,432	1,06,41,485	1,16,30,147	1,03,95,449	1·13	...	12,34,698
Indigo	23,11,941	69,44,399	87,93,207	99,62,988	1·08	11,69,781	...
Coal, coke and patent fuel	75,66,939	52,78,803	73,62,406	75,11,052	·81	1,48,646	...
Hemp, raw	37,91,262	46,67,899	51,52,353	69,71,095	·76	18,18,742	...
Saltpetre	34,22,785	41,40,762	57,88,643	64,91,092	·70	7,02,449	...
Mica	29,92,225	23,64,272	26,83,198	44,63,689	·48	17,80,491	...
Dying and tanning substances—other than indigo.	22,27,633	20,96,614	30,81,612	29,28,252	·32	...	1,53,360
Oils	25,06,372	23,61,442	29,67,214	25,19,991	·27	...	4,47,223
Manures	27,19,022	21,09,119	20,81,534	23,36,881	·25	2,55,347	...
Provisions and oilman's stores ...	22,23,886	22,39,003	22,20,417	22,29,545	·24	9,128	...
Articles (not specified) exported by post.	8,04,230	6,08,940	7,14,365	21,50,038	·23	14,35,673	...

Exports of merchandise were greater in value than in the previous year by 5 per cent. and better than in the quinquennial period by 9 per cent. The value of Indian merchandise exported rose by 5 per cent. and that of re-exports by 113 per cent.

Jute and Jute manufactures.

364. As the year progressed, restrictions on jute and jute manufactures increased in severity. The industry during 1916 nevertheless enjoyed unparalleled prosperity, though, with the first quarter of 1917, the non-renewal of Government orders and the great scarcity of tonnage, coupled with financial difficulties in exchange, caused a decided set-back and finally led to an agreement to work short time from the 1st April 1917. The value of the trade in 1916-17 attained the high total of Rs. 56·85 crores, an increase on 1915-16 of 8 per cent., and on previous record (1913-14) of 1 per cent. There was a marked decrease in exports of the raw material equivalent to 11 per cent., due to the continued non-participation in the trade, for obvious reasons, of the Central European powers as well as to the difficulties above referred to. A higher average price is responsible for an increase of 3 per cent. in the total value of raw jute exported. The advance in the gunny trade was substantial; in volume the increase recorded was 2 per cent. and in value 9 per cent., owing chiefly to the higher prices ruling earlier in the year. The number of bags showed a rise of 1 per cent. and the yardage of cloth a rise of 3 per cent., the rise in values being 6 and 14 per cent., respectively. These figures include contributions by the mills, of bags and cloth on behalf of the British War Department for our Army and those of our Allies, representing 17 per cent. of the total value shown for gunny bags and cloth. There was also a marked advance in value of jute manufactures other than bags and cloth (twist and yarn with rope) aggregating 52 per cent. The jute trade represented 60 per cent. of Calcutta's export trade in 1915-16 : in the year now reviewed it was 62 per cent.

Tea.

365. The year was not so prosperous for tea as 1915-16. Prices have not deteriorated to any marked extent and at Home they have attained a very high level : but the crop of the past season has been smaller ; transport difficulties have been excessive and freights higher. On the 22nd September 1916 exports had been prohibited to all neutral countries in Europe with the exception of Spain and Portugal and in the last month of the year, shipment of tea to the United Kingdom came under restriction, 10,000 tons only being allowed to be exported monthly ; 7,000 tons from British India (6,500 Calcutta and Chittagong, 500 Southern India) and 3,000

from Ceylon. The incidence of taxation remained the same throughout the year, Re. 1-8 per 100 lbs., approximately 3 pies per lb. In the past year, exports from Calcutta have fallen in quantity by 19 per cent. and in value by 20 per cent., shipments being smaller than in any year since 1913-14. The crop was certainly smaller but in addition to this much tea has had to be retained on the gardens, at the steamer ghats, on rivers in Assam and elsewhere, to prevent greater congestion in Calcutta.

Hides and Skins.

366. The year's trade in hides and skins exhibited a diminution in volume, though, with a higher range of prices, the aggregate value improved; volume was smaller by 14 per cent. and value has risen by 8 per cent. In hides of all kinds a decline was noticeable under both quantity and value to the extent of 14 and 9 per cent., respectively: but the number though not the weight of skins exported increased by 18 per cent., and their value by 77 per cent. To the United Kingdom hides have been sent in larger quantities than in any previous year.

Lac.

367. Exports of lac were smaller by 8 per cent., but higher prices account for a rise in value of 63 per cent. No less than 77 per cent. of the trade went during the last twelve months to the United States, while only 13 per cent. was absorbed by our own country.

Metals and Ores.

368. In spite of restrictions the trade in metals and ores expanded greatly: the total quantity rose from 150,372 to 338,230 tons and the value from Rs. 80·44 to Rs. 153·93 lakhs, or by 125 and 91 per cent., respectively.

The expansion under manganese ore was marked: the exports rose from 77,648 to 233,337 tons or by 201 per cent., and the value from Rs. 16·17 to Rs. 55·82 lakhs or by 245 per cent.: the average price now stands at Rs. 23-14-9 as compared with Rs. 20-13-4 of the previous year. Seventy per cent. of the exports went to the United Kingdom.

Of "other countries", the United States took 43,212 tons, Japan 17,480 and France 8,154 tons.

Raw Cotton.

369. The trade in raw cotton is not one in which Bengal is greatly interested. Exports fell by 34 per cent. in volume, but the higher prices that obtained reduced the fall to one of only 11 per cent. in value. Japan has continued to be our best customer, absorbing 58 per cent. of the total trade; Italy took 8 per cent., the United States of America 6, China 4, and Spain 2 per cent.

Indigo.

370. During the past year indigo has continued to be free from any restrictions on export from British India. The continuance of war has also further stimulated cultivation and, in spite of a season which has not been wholly favourable, the area under indigo has increased by 114 per cent. to 756,400 acres, while the yield of dye is calculated at 95,500 cwts. From Calcutta exports were greater in quantity by 4 per cent. and in value by 13 per cent. To the United Kingdom the quantity shipped was greater by 4 per cent.; to the United States by 2 per cent.; while to Russia and Italy the exports amounted only to 472 and 112 cwts., respectively.

Coal.

371. The quantity of coal produced in British India in 1916 was 16,419,082 tons, an increase of 66,602 tons or ·4 per cent. For Bengal and Bihar and Orissa 15,754,598 tons were produced equivalent to a ·4 per cent. increase. The course of trade was affected to a great extent by the necessity which arose, and is now continuing, for conserving the consumption of first class coal for Naval, Military and Railway purposes. The total exports of coal fell by 17 per cent. in quantity and by 19 per cent. in value, but exports of coal to foreign countries rose by 2 per cent. in volume to practically the same figure as the average for the previous quinquennium. There was a great scarcity of tonnage in the coasting trade, and consequently a marked tendency throughout the year to rail coal from the pithead to ports formerly supplied by sea from Calcutta.

Saltpetre.

372. Saltpetre (potassium nitrate) continued to be under severe restrictions throughout the year, with an even greater degree of stringency than in 1915-16. The demand for munition purposes was more intensified and no crude saltpetre is now permitted to any destination.

Exports in volume fell slightly by 9 per cent., but the upward trend in prices influenced the aggregate value to the extent of 12 per cent.

Export trade of Calcutta with other countries.

373. The following statement shows the relative shares of the principal countries in the export trade (merchandise only) of Calcutta :—

	1915-16.	1916-17.	1915-16.	1916-17.
	Rs. lakhs.	Rs. lakhs.	Per cent. of total.	Per cent. of total.
United Kingdom ...	3,176	2,958	36·1	32·0
Other British Possessions ...	1,197	1,233	13·6	13·3
United States	1,741	2,365	19·8	25·5
Russia	520	540	5·9	5·8
South America	579	496	5·5	5·4
Italy	437	238	4·9	2·5
France	331	319	3·8	3·4
Japan	181	212	2·1	2·3
Java	111	159	1·3	1·7
Total Exports (including other countries).	8,789	9,267	100	100

II.—FRONTIER TRADE.

[Report on the Frontier Trade of Bengal for 1916-17.]

Frontier trade.

374. The total value of the trade with the adjacent States of Sikkim, Nepal, Tibet and Bhutan in the year ending 31st March 1917 amounted to Rs. 128·11 lakhs, exclusive of the movements of treasure, the registration of which continues to be defective. This figure represents an increase of Rs. 8·86 lakhs or 7·4 per cent.

Imports into Bengal.

375. Of the total value of the imports into Bengal (Rs. 91 lakhs), 34 per cent. came from Nepal, 32 per cent. from Tibet, 30 per cent. from Sikkim and the balance 4 per cent. from Bhutan. The principal articles of import into Bengal were—from Nepal, animals living (Rs. 15·79 lakhs), fruits, vegetables and nuts (Rs. 10·48 lakhs) and provisions, chiefly *ghee*, (Rs. 2 lakhs); from Tibet, raw wool which constitutes the main staple of import (66,138 maunds valued at Rs. 21 lakhs), animals, chiefly horses, ponies and mules (Rs. 1·67 lakhs), skins of sheep and goats (Rs. 1·62 lakhs) and yaks' tails (Rs. 66 thousand); from Sikkim, living animals (Rs. 4·91 lakhs), grain and pulse (Rs. 4·74 lakhs), fruits, vegetables and nuts (Rs. 8 lakhs), *ghee* (Rs. 1 lakh) and spices (Rs. 4 lakhs), and from Bhutan living animals (valued at Rs. 1 lakh).

Exports from Bengal.

376. Of the total exports (Rs. 36 lakhs), 45 per cent. went to Sikkim, 37 per cent. to Tibet, 13 per cent. to Nepal and 5 per cent. to Bhutan. The exports from Bengal to Sikkim consisted mainly of cotton manufactures (Rs. 2·74 lakhs), provisions (Rs. 2·98 lakhs), grain and pulse, chiefly rice (Rs. 1·88 lakhs) and metals and manufactures thereof (Rs. 1·69 lakhs); Tibet, cotton piece-goods (Rs. 3 lakhs), metals and manufactures thereof (Rs. 2·54 lakhs) and silk manufactures (Rs. 1 lakh); and to Nepal cotton manufactures (Rs. 2 lakhs), and metals (Rs. 34 thousands). The principal commodities exported to Bhutan were cotton piece-goods valued at Rs. 39 thousands and betel nuts at Rs. 48 thousands.

III.—COASTING TRADE.

[Report on the Maritime Trade of Bengal for 1916-17.]

Coasting trade.

377. The total value of the coasting trade of Bengal, including Government stores and treasure, amounted to Rs. 24·7 crores, an increase of Rs. 2·8 crores or by 13 per cent. In Calcutta, to which 82 per cent. of the trade belongs, there was a decrease in imports of private merchandise from Rs. 10·21 crores to Rs. 9·57 crores or 6 per cent., and in exports from Rs. 6·25 crores to Rs. 6 crores or 4 per cent. Burma naturally continued to secure the bulk of the trade, slightly increasing her total figures from Rs. 13·33 to 13·38 crores; but transactions with the other provinces which are connected by rail fell heavily, with Madras by Rs. 28 lakhs to Rs. 1·24 crores, with Bombay by Rs. 36 lakhs to Rs. 49 lakhs, and with Bihar and Orissa by Rs. 6 lakhs to Rs. 25 lakhs. The coasting trade with Sind showed a decrease of Rs. 13 lakhs.

IV.—TRADE BY RAILWAY AND RIVER.

[Report on the Trade carried by Railway and River in Bengal during 1916-17.]

Railway and river-borne trade.

378. The quantity and value of the inland trade of Bengal are shewn in the following table :—

Year.		Imports into Bengal including Calcutta from other provinces.	Exports from Bengal including Calcutta to other provinces.	Imports into Calcutta from the rest of Bengal.	Exports from Calcutta to the rest of Bengal.
1913-14 ...	Mds.	196,102,000	66,168,000	135,852,000	41,519,000
	Rs.	58,28,29,000	49,12,48,000	59,28,04,000	40,26,96,000
1915-16 ...	Mds.	176,582,000	85,991,000	111,415,000	41,431,000
	Rs.	62,16,34,000	53,79,51,000	50,98,79,000	40,73,28,000
1916-17 ...	Mds.	182,965,000	106,185,000	107,935,000	37,822,000
	Rs.	69,50,29,000	62,91,13,000	61,01,23,000	41,44,97,000

The imports into Bengal including Calcutta were valued at over Rs. 69 crores, of which 39 per cent. came from Bihar and Orissa, 20 per cent. from Assam, 19 per cent. from the United Provinces, 9 per cent. from Bombay, 5 per cent. from the Central Provinces and Berar, 4 per cent. from Madras and the balance (4 per cent.) from other provinces. Of the total exports (Rs. 62 crores) 30 per cent. went to Bihar and Orissa, 20 per cent. to the United Provinces, 14 per cent. to Assam, 9 per cent. to the Punjab, 3 per cent. to the Central Provinces and Berar, and the remainder to other provinces.

Imports by railway and river into Bengal.

379. The principal articles of import into Bengal including Calcutta were, from Bihar and Orissa, Railway materials (Rs. 7 crores), coal and coke (Rs. 4 crores), iron and steel (Rs. 2 crores), oilseeds (Rs. 1 crore), jute (Rs. 1 crore), hides and skins (Rs. 1 crore), grain and pulse (Rs. 1 crore), and indigo (Rs. 95 lakhs); from the United Provinces of Agra and Oudh, grain and pulse (Rs. 2 crores), oilseeds (Rs. 2 crores), hides and skins (Rs. 1 crore), lac (Rs. 1 crore), opium (Rs. 96 lakhs), and *ghee* (Rs. 84 lakhs); from Assam, tea (Rs. 10 crores), jute (Rs. 76 lakhs) and grain and pulse (Rs. 53 lakhs); from the Central Provinces and Berar, grain and pulse (Rs. 1 crore), cotton, raw (Rs. 75 lakhs), and metallic ores (Rs. 45 lakhs); and from the Bombay Presidency, cotton manufactures (Rs. 5 crores).

Exports by railway and river from Bengal.

380. The exports from Bengal including Calcutta to Bihar and Orissa comprised mainly cotton manufactures (Rs. 6 crores), metals and manufactures thereof (Rs. 2 crores), oils, chiefly kerosine (Rs. 1 crore), sugar (Rs. 88 lakhs), salt (Rs. 86 lakhs), and spices (Rs. 57 lakhs); to the United Provinces of Agra and Oudh, cotton manufactures (Rs. 3 crores), sugar (Rs. 1 crore), metals and manufactures thereof (Rs. 1 crore), oils, chiefly kerosine (Rs. 88 lakhs), grain and pulse (Rs. 87 lakhs) and gunny bags (Rs. 77 lakhs); to Assam, cotton manufactures (Rs. 1 crore), metals and manufactures thereof (Rs. 1 crore), grain and pulse (Rs. 1 crore), and sugar (Rs. 45 lakhs); to the Punjab, cotton manufactures (Rs. 1 crore), gunny bags and cloth (Rs. 89 lakhs), metals and manufactures thereof (Rs. 56 lakhs), sugar (Rs. 47 lakhs), and rice (Rs. 20 lakhs); while exports to the Central Provinces and Berar consisted principally of cotton manufactures (Rs. 1 crore), sugar (Rs. 33 lakhs), gunny bags and cloth (Rs. 32 lakhs) and kerosine oil (Rs. 23 lakhs).

PUBLIC WORKS.

Establishment.

Public Works Department Reorganization Committee.

381. After considering the organization, methods and procedure of the Buildings and Roads Branch of the Public Works Department, the Government of India, with the approval of the Secretary of State for India, appointed a Committee consisting of 5 members for the purpose of enquiring into and

reporting upon the organization of the department with a view to its improvement. The Committee held its sittings in Calcutta in January and February 1917 and obtained the views of selected members of the Public Works Department, representatives of other Government Departments as well as of local bodies, private engineering and contracting firms and of the general public.

Fees of Electrical Engineers of Government.

382. There is diversity of practice in the matter of requiring the payment of fees for the services of Government Electrical Engineers when these officers are called upon by local bodies to draw up projects or to advise on electric installations or to supervise the construction of such works. In order to establish some uniformity the Government of India made certain proposals, and this Government agreed that fees should be charged to Municipalities and other local bodies for the expert advice and services of the Electrical Officer of Government.

Utilization of the services of the Electrical Adviser to the Government of India.

383. With the object of making it clear that the services of the Electrical Adviser to the Government of India are always at the disposal of the Local Governments and Administrations for purposes of consultations, etc., and of inviting the latter to make full use of his services, the Government of India issued revised rules, defining his position and duties, the intention being to afford Local Governments and Administrations additional expert assistance in dealing with the various problems that arise in connection with the administration of the Indian Electricity Act.

Buildings.

IMPERIAL WORKS.

Salt Golas.

384. *Salt Golas at Chittagong.*—The construction of the new golas was finally completed and the five old golas were transferred to the Port Commissioners, Chittagong.

Post and Telegraph Offices.

385. The following works were completed during the year :—

A combined Post and Telegraph office with quarters for the staff at Namkhana in the Sunderbans ; additions and alterations to the Post and Telegraph offices at Darjeeling, Kumarkhali and Krishnagar ; enlarging the Telegraph instrument room and the godown at Saidpur ; additions and alterations to the Post Office and Post Master's quarters at Dinajpur.

In the Telegraph Storeyard at Dhullandah corrugated-iron pipes were laid and connected with the unfiltered water main. A parcel room was constructed for the new Post Office at Chittagong and water-supply fittings and lightning conductors were provided in the main building. Additions and alterations to the Post Office and Post Master's quarters at Kurseong were taken in hand.

Settlement buildings.

386. The vernacular office and peons' quarters in connection with the Settlement buildings at Jessore were completed and the Settlement Officer's residence was nearly completed. The Settlement buildings at Comilla were completed except the fixing of lightning conductors. Two temporary sheds for the Settlement Presses were also constructed.

Treasury and Currency buildings.

387. To provide sufficient accommodation for the Registration Branch of the Paper Currency Office, a 3rd storey was built on the roof of the out-building. Additional Chubb's Patent cupboards for the fresh Note vaults were provided and fixed. Electric installations were provided in the Paper Currency Office extension, 2nd floor, and at No. 2 Dalhousie Square (hired for the office of the Controller of Currency) and alterations were made to the existing installation in Mission Row. Additions and alterations to the electric installation in the part of the Treasury buildings occupied by the office of the Accountant-General, Bengal, were also carried out.

Victoria Memorial Gardens.

388. The work of clearing and levelling the old Presidency Jail site, Calcutta, in connection with the lay-out of the Victoria Memorial Gardens was completed.

Mint.

389. To avoid the probability of a break-down of the condensing plant in the Power House, the supply pipe circulating water between the condenser and the Mint tank was taken up and relaid.

390. At the Meteorological Observatory at Alipore, the position of the gate was changed and a lodge for the Durwan was constructed. **Observatory.**

391. An installation of additional lights and fans was provided in certain rooms occupied by the office of the Official Trustee of Bengal in Council House Street, Calcutta. **Secretariat buildings.**

392. A flag-staff was erected near Cox's Bazar for hoisting storm warning signals for the benefit of the fishermen at Sonadia Island. **Flag-staff.**

PROVINCIAL CIVIL WORKS.

393. The following works were completed :—

The construction of record-rooms for the District Judge's Court at Midnapore and for the Collectorate at Barisal; additions and alterations to the record-room of the District Judge's Court at Midnapore; the main buildings of the Subdivisional Courts at Tamluk and Uluberia; an additional room for the Subdivisional Court at Diamond Harbour, and the Khas Tahsil office at Bhagwanpur. **Revenue and Judicial Courts.**

Latrines and urinals in the compounds of the Judge's Court at Alipore, the Small Cause Court, Calcutta, and the Civil Court at Bankura, gangways for the wall-shelves in the double Munsifi at Magura and in the criminal record-room of the Deputy Commissioner's office at Jalpaiguri; renewing the gabled roof of the Magistrate's Court at Krishnagar; provision of wells for the Subdivisional Courts at Lalbagh and Katwa; improvements to the record-room and the provision of lightning conductors on the Collector's Court, Pabna.

The Treasure Guard's barrack and cook-shed at Uluberia were built to roof level. Some of the additions and alterations to the Collectorate at Barisal, which awaited the completion of the new Collectorate record-room, were in progress. Three-fourths of the work of additions and alterations to the single block of the Treasury at Dinajpur was completed. The conversion of the old school at Nattore into a Munsif's Court was taken up and nearly finished. The improvements to the Treasury at Rangpur were in progress.

394. The following were completed :—

Munsif's residence at Uluberia; improvements to the Subdivisional residence at Natore; a tube well for the Munsif's residence at Naogaon; privies for the Subdivisional residence at Chuadanga; re-roofing the servants' quarters of the Subdivisional residence at Kushtea; and improving the ventilation of the Subdivisional residence at Kandi. **Subdivisional Officers, and Munsifs' residences.**

395. A masonry well was sunk in the compound of the Circuit House at Malda. **Circuit Houses.**

396. The following works were completed :—

A combined liquor warehouse and *ganja gola* at Contai; racks in the combined liquor warehouse and *ganga gola* at Bandel; improvements to the well in the bonded warehouse at Pabna; re-arrangement of vat pillars in the bonded warehouse at Godagari. **Excise.**

A latrine was provided for the Assistant *Ganga*-Supervisor's quarters at Gobindapur. A well for the liquor warehouse at Luksan was nearly completed.

397. Additions and alterations were effected in Government House at Dacca and materials were collected for an independent water-supply connection. **Residences for Local Government.**

398. To improve the light and ventilation of the Secretriat Press in Writers' Buildings, Calcutta, it is proposed to replace the gas lights and swing punkhas by electric lights and fans and to provide ventilating fans. The wiring was completed but the fans had not yet been received from England during the year. The work of strengthening the 1st floor of the Eastern Bengal Railway Office, Sealdah, in order to accommodate part of the Secretariat Press was carried out and an electrical installation provided. The new Secretariat building at Dacca was completed. **Secretariat Offices.**

399. The four residences at Dacca for the use of the Secretaries and Heads of Departments during the annual move to Dacca were finally completed. A residence for the Superintendent of Police at Burdwan was completed. **Residences for Government Officials.**

Jails.

400. The following works were completed :—

Supplying filtered water from the Municipal mains to the Jessore Jail; providing a new pump in the District Jail at Krishnagar and filling up the tank in front of the Sub-Jail at Kushtea; providing expanded metal walling round the verandah of the 1st floor of the double-storeyed barrack in Khulna Jail; all additions and alterations in connection with the Comilla Jail except improvements in the double-storeyed barrack; an "overflow" shed in the Mymensingh Jail and quarters for the Assistant Jailor; works in connection with the Jail hospital at Rangpur; conversion of the old gate and office of the Malda Jail into a godown; a roofed verandah to the Warders' quarters in the Pabna Jail; additions and alterations to the under-trial ward in the Pabna Jail; and reducing the height of the compound wall of the Juvenile ward in the Central Jail at Rajshahi.

The floor of the Smiths' shop and grinding hall in the Jail at Pabna was raised and a workshop for prisoners was constructed in the Dinajpur Jail. The construction of a new Jail hospital at Dinajpur was taken in hand and nearly finished during the year. Pipes only remained to be fitted in connection with the work of sinking wells in the Pabna Jail and Rampur Boalia Central Jail. A Lancashire boiler was erected in the Jute Mill of the Presidency Jail, Alipore.

Police.

401. The construction of a Police Office at Lall Bazar, Calcutta, was started on the site of the old building which was condemned and dismantled. Brick work up to arch springing was completed during the year under review. Two temporary barracks for Constables were constructed at Tollygunge and certain improvements to the butts for the Rifle Range at Tollygunge were carried out. Electric lights and fans were installed in the constables' barracks and residential quarters in the Police Training School at Dhullandah. The additions and alterations to two Sub-Inspectors' quarters at Amta were completed. Improvements in the Armed Inspectors' quarters at Midnapore were effected. The parade ground for the Reserve Police at Khulna was levelled. The buildings for the Reserve Police at Chittagong were almost completed. Police buildings were constructed at Pirganj, Hathibandha, Pirgacha, Bochaganj, Karipur, Kaharul, Kachuabazar, Muradnagore, Mohalsary, Sreepur and Fulpur. A Police hospital at Mymensingh and a residence for the Assistant Superintendent of Police at Netrokona were also completed. Police buildings at Gangachara, Bhurangamari, Nachole, Nandanali, Kushmundi, Gangarampur, Niamutpur, Pirganj, Baxirhat, Nabinagore, Dhamrai and Tangibari, a Police hospital at Chinsurah, infectious diseases ward and Sub-Assistant Surgeon's quarters for the Police hospital at Bankura, quarters for Sub-Inspectors and Head-Constables at Onda, Reserve Police buildings at Burdwan and a Police outpost at Keshabpur were in progress. The tank in the north-east corner of the Constables' Training School at Dacca was filled in, the compound raised and a combined magazine, armoury and guard-room for the school was constructed. Additions and alterations to buildings to provide quarters for the officers of the school were also effected. Family quarters were constructed for the Sub-Inspector and Head-Constables at Muktagacha. The septic tank and filter beds in connection with the Police barracks at Bloomfield, Darjeeling, were completed. A verandah was provided for the quarters of the Armed Inspector in the Police lines at Rajshahi and the compound wall was raised. The sinking of wells in the compounds of the Nandigram and Lalbag Police Stations was in progress.

The following works were also completed during the year :—

Pipe-water supply to the residence of the Superintendent of Police, Berhampore; improvements to the Police hospital at Berhampore and Armed Inspectors' quarters at Krishnagar; converting the old liquor depôt at Vishnupur into a Police Court office; pipe-water supply to Police buildings (non-residential) at Hooghly and Chinsurah; residence for Superintendent of Police at Burdwan; a combined reserve Police office and guard-house at Bankura; and a verandah to the Police building at Burdwan.

The following works in connection with the Police Training College at Sarda were completed :—

Cook-sheds for 315 Constables; hospital buildings; dhobikhana; Assistant-Surgeon's quarters; two 12-seated latrines; conservancy shed and godown;

sycos' quarters ; additions to the dispensary building ; improvements to the rifle range ; temporary barrack for the 60 additional Recruits and 4 Head-Constables.

Those in progress at the end of the year were :—

Conversion of Factories Nos. III, IV and V into barracks and Nos. II and IIA into cook-sheds ; and a residence for the Assistant Principal.

402. The following works were completed :— Educational.

Extension of a covered-way to the verandah of the dormitory ; the construction of two small sheds for linen washing and alterations to the sanitary fittings in the dormitory buildings at Dow Hill Girls' School, Kurseong ; the remodelling of a drain at the eastern boundary of and improving the floor and walls of the kitchen attached to the Victoria Boys' School, Kurseong ; a dining shed for the Hindu hostel of the Zilla School, Rangpur ; *Guru*-Training Schools at Malda and Naogaon ; converting the *Guru*-Training School into a boarding house for Hindu boys of the Pabna Zilla School ; a kitchen and dining hall for the proposed hostel for the Muhammadan boarders of the Pabna Zilla School and filling the tank in the compound of the Zilla School at Rangpur ; Hindu and Muhammadan kitchens for the *Guru*-Training Schools at Nalikul and Bolpur ; Head Pandit's quarters for the *Guru*-Training School at Kola, except the wall which was in progress ; a Hindu and a Muhammadan kitchen for the *Guru*-Training School at Ramnagar ; additions and alterations to the Principal's quarters attached to the Krishnagar College ; a well in the Krishnagar College compound ; the north-west block of the Baker Madrassa hostel extension, Calcutta ; electric installation in the Calcutta University Institute and in the Lady Principal's quarters, Bethune College, Calcutta ; additional buildings and four class-rooms for the Zilla School at Mymensingh ; a hostel for Muhammadans of the Middle English School at Cox's Bazar and a *Guru*-Training School at Kaliajuri.

Two cook-sheds for Hindus and Muhammadans of the *Guru*-Training School at Mohesrekha and improvements in the *Guru*-Training School at Amta were nearly completed. The electric installation in the wings of the Baker Madrassa Hostel was also nearly finished.

The following works were in progress :—

Improvements in the water-supply at the Victoria Boys' School, Kurseong ; extension of the Hockey flat and construction of an Isolation Ward with out-houses for the Dow Hill Girls School at Kurseong ; Hindu and Muhammadan hostels, dining hall and cook-room for the Zilla School at Mymensingh and raising the sites for the Zilla and Technical Schools at Barisal.

The following grant-in-aid works were supervised :—

The construction of the High English School at Saroatali in Chittagong ; the Badarannessa High English School at Comilla ; the Urban Girls' School at Chandpur and the High English School at Lakhipur in Noakhali and repairs to the Mianji Training School at Ramu.

403. A bedding boiler was erected for the Sambhu Nath Pandit Hospital at Bhowanipur. Improvements were made in the latrine and lavatory arrangements of the Lady Elliott Hostel, Campbell Hospital at Sealdah. The out-houses in connection with the School of Tropical Medicine and Biological Laboratory, Medical College, Calcutta, were completed. The installation of two electric pumps for the new Nurses' quarters in the Medical College Hospital was nearly completed. All work in connection with the Central Lunatic Asylum at Berhampore was completed, except turfing the slope of a metalled road and constructing a drain in the eastern enclosure. Hospitals and Dispensaries.

404. The construction of Sub-Registry offices at Mirsarai, Madhupur and additions and alterations to the record-room and Registration office at Comilla were in progress. Improvements in the Sadar Registration office at Rangpur were completed and form racks were provided in the old Registration office at Jalpaiguri. A Sub-Registry office was constructed at Matla and the Sadar Registration office at Burdwan was extended and racks provided. Registration.

405. The following works were completed :—

Quarters for the Sectional officer at Chuadanga ; a godown at Nattore ; combined dispensary and quarters for the Sub-Assistant Surgeon at Nagrakatta ; additions and alterations to the Sukhanighat rest-house to convert it into a Subdivisional officers' residence and Subdivisional officers' quarters at Alipur Duars. Public Works Department buildings.

The construction of Public Works Department buildings at Gairkatta and a temporary residence for the Executive Engineer, Duars Road Division, at Jalpaiguri were in progress.

Archæological Works.

406. The repair of the Satgambuz Mosque and Khan Jahan Ali's tomb at Bagerhat and of the 14 ancient temples in and near Vishnupur were taken in hand. The temple of Joydeb at Kenduli was also thoroughly repaired. The special repairs of the Chikka Mosque at Gour were completed, while those of the cloisters of the Adina Mosque at Pandua were half completed.

Ecclesiastical.

407. The cemetery at Sirajganj was extended and an enclosure wall was constructed round and extension of the cemetery at Dacca.

Miscellaneous.

408. The re-excavation of a drinking water tank for the land surveying school at Mainamati in the Tippera district was completed. The installation of electric lights and fans at Nos. 5 and 6, Government Place, North, at present occupied by Lady Carmichael's Bengal Women's War Fund, was completed.

Contribution works.

409. The following works in the Mitford Hospital at Dacca were carried out :—

Additions and alterations to the Lady Dufferin Ward, to the Eye Ward for males, to the Female Ward and to the European Ward. The construction of the female Surgical and Obstetric Ward and Administrative Block were in progress and half completed. Materials for the Tubercular Ward to be erected on the roof of the Medical College Hospital, Calcutta, were collected and preliminary arrangements made to start the work. The construction of a new hospital for Tropical diseases was more than two-thirds completed. The installation of electric lights and fans in the new Chapel of the Presidency General Hospital, Calcutta, was completed. The dining, dressing and bathing rooms for the Loretto Convent, Darjeeling, and the sweepers' quarters attached to the Charitable Dispensary at Kurseong were completed. The addition of a porch to the Church of Rome at Saidpur was in progress.

COMMUNICATIONS.

Calcutta.

410. A brick-metalled road, 50 feet wide, with a footpath on each side was constructed parallel and adjacent to the northern boundary of the Victoria Memorial Gardens on the Calcutta Maidan. Part of the Dhoba and Jail tanks was filled in. The road which is named the "Queensway" has been constructed at a cost of Rs. 56,396.

Jessore.

411. The side lands of the Grand Trunk Road were demarcated with boundary pillars at every quarter mile, and a pucca drain was constructed in the 73rd mile.

Darjeeling.

412. The widening of the Teesta Valley Road from the junction of the old and new roads up to near the Geille Jhora bridge was in progress at the close of the year. The construction of a bridge over the Andharia Jhora which was in progress last year was completed.

The reconstruction of the smaller span of the Rishi Bridge at the 26th mile of the Rishi Road was in progress.

Rajshahi.

413. The following works which were in progress during the previous year were completed :—

(*i*) A steel pile bridge over the Jamuna River at Hilli in the Bogra district ;
(*ii*) A well for the Hilli Inspection Bungalow in the Bogra district ;
(*iii*) Metalling 4¾ miles of the Hilli Balurghat Road in the Dinajpur district.

Jalpaiguri Duars.

414. The following roads in the Jalpaiguri Duars which have been under construction during the past two years were completed :—

Chalsa-Latiguri Road	...	...	14 miles.
Nagrakatta-Chengmari Road	...	...	6¾ ,,
Gairkatta-Dhupguri Road	...	...	8¼ ,,
Banarhat-Chamurchi Road	...	...	6¼ ,,
Gairkatta-Binaguri Road	...	...	4½ ,,
Tandu Forest Road ...	...	...	8¼ ,,
Banarhat-Binaguri Road	...	...	4 ,,

Progress in construction was made in connection with the following roads :—

Gairkatta-Dalgaon Road.
Dalgaon-Lankapara Road.
Jainti-Dhowla Road.
Alipur-Kumargram Road.

The following major bridges which have been under construction during the past two years were finally completed during the year :—

(1) Ghatia Bridge.
(2) Kuji Daina Bridge.
(3) Dadua Bridge.
(4) Jainti Bridge.
(5) Gadadhar Bridge.

The Gadadhar Bridge shortly after completion was damaged by heavy flood in July 1916. Steps were taken to make good the damage. It was decided to add two more spans and this work was in progress. Steel work required for the additional spans was indented for.

In regard to the bridge over the Jaldhaka river, on the Tandu Forest Road, 4 piers were completed up to girder level and 1 pier to within 5 feet of this level. The two abutments were raised to about $\frac{2}{3}$rds of full height. River training work was in progress and the earthwork in approach roads was nearing completion.

Owing to there being no possibility of the steel superstructure arriving from England during the war, the question of substituting reinforced concrete arches for the cantilevers was under consideration.

For the bridge over the Murti river, pile driving was finished and construction of the superstructure was in progress. Protective works were put in. All material was collected.

The construction of two 20-feet span bridges on the Banarhat-Binaguri Road, which was begun last year, was completed.

The construction of a bridge over the Sukhani Jhora started last year, but kept in abeyance on account of the rains, was again taken in hand, and nearly completed.

The improvements to the Chalsa-Latiguri Road Bridges, commenced last year, were completed.

All the minor bridges and culverts on the Nagrakatta-Chengmari Road, 2nd section, the construction of which was begun last year, were completed with the exception of the Kalijhora Bridge, the flooring of which was not finished.

A 40-feet bridge on the 2nd mile of the Banarhat-Chamurchi Road was constructed.

The construction of the following Inspection Bungalows, which were started last year, were completed during the year :—

Gairkatta.
Dalgaon.
Lankapara (about 98 per cent).
Samoktola.
Hathipota.
Latiguri.

415. Part of the Chittagong Trunk Road in the Tipperah district, badly damaged by heavy rain in October 1916, was repaired during the year. **Chittagong.**

A bridge in the 40th mile which was washed out in 1915 was reconstructed and special repairs to a bridge in the 9th mile, were completed.

416. The construction of a road from Mohalsary to Ramgarh, in progress last year, was suspended. Construction of two bridle-roads from Nainerchar to Malonymukh and from Khagressory to Dighinala was in progress. **Chittagong Hill Tracts.**

ARBORICULTURE.

417. Arboricultural operations along roads in charge of the Public Works Department were carried out as far as funds were available. **Arboriculture.**

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Calcutta Maidan.

418. The work of clearing and levelling the old Presidency Jail site in connection with the lay-out of the Victoria Memorial Gardens, which was taken in hand during 1915-16, was completed.

The Curzon Statue was removed from its temporary site and re-erected in its permanent position in the Queensway, facing what will eventually be the main entrance to the Victoria Memorial on the Calcutta Maidan. The work was undertaken as a contribution work.

Darjeeling.

419. Pillars were constructed to demarcate the boundary between the districts of Darjeeling and Purnea.

Special repairs to the Jhoras in the town of Darjeeling were completed.

Barisal.

420. In spite of high floods there was little erosion of the bank of the river at Barisal. The Jail wall was threatened, but successful protective measures were taken.

Madaripur and Patuakhali.

421. The erosion of the river banks at Madaripur and at Patuakhali continued, but to no great extent. The bamboo palisading for the protection of the river banks at these places was maintained with good results.

Noakhali.

422. The erosion of the coast in front of Noakhali continues and the average depth of erosion during the last three years has been roughly 800 feet. At the end of the present year the river was about $\frac{1}{4}$th of a mile from the compound of the Zilla School, which is the nearest Government building to the river. If the present rate of erosion continues the Zilla School is likely to be effected in 1918-19.

To meet the possible destruction of Government buildings steps were taken for the selection of a site on which to erect new temporary buildings. This matter was still under consideration at the close of the year.

Rates for electric current in Calcutta.

423. A Committee composed of the Hon'ble Mr. J. Donald, Secretary to the Government in the Financial Department as President, and Messrs. J. W. Meares, Electric Adviser to the Government of India, A. K. Taylor, Electric Inspector, Bengal and Assam, and W. Stather Hale, Registrar, Joint Stock Companies, Bengal, as members, was appointed to enquire into the rates charged for electric current by the Calcutta Electric Supply Corporation.

The report of the Committee was submitted to Government in November 1916, and has since been published. The matter is still under consideration.

CONTRIBUTION WORKS.

Darjeeling.

424. The following works which were in progress last year were completed :—

(*i*) Constructing a halting shed at Tista Bridge in the Darjeeling district.

(*ii*) Constructing a new D. I. Fund Bungalow at Sinchal.

Railways.

Administration.

425. The more important railways in Bengal are entirely under the control of the Government of India. The following private lines are partially controlled by the Government of Bengal :—

	Gauge. Ft.	Gauge. In.	Length in miles.
(1) The Darjeeling-Himalayan Railway	2	0	·51
(2) The Bengal Provincial Railway (Tarkessur-Tribeni) ...	2	6	33·27
(3) The Howrah-Amta Light Railway	2	0	43·87
(4) The Howrah-Sheakhala Light Railway	2	0	19·75
(5) The Baraset-Basirhat Light Railway	2	6	52·24
(6) The Jessore-Jhenidah Railway	2	6	36·80
			236·93

Mileage.

426. During the year 1916-17, 151·00 miles of new railway were opened for traffic. This mileage was made up as follows :—

	Miles.
(Standard 5′ 6″ gauge).	
Eastern Bengal Railway—	
Sara-Serajgunj Railway (Bhangura-Serajgunj Section and Serajgunj Ghat Extension)	31·75
East Indian Railway—	
Burdwan-Howrah Chord	45·25
(Metre 3′ 3⅜″ gauge.)	
Assam-Bengal Railway—	
Bhairab Bazar-Daulatkandi Section of the Bhairab Tangi Branch	3·25
Bhairab Bazar Mymensingh Railway—	
Bhairab Bazar-Kishoregunj Section ... ... (goods only.)	31·25
(Narrow 2′ 6″ gauge.)	
Messrs. McLeod and Co.—	
Bankura-Damodar River Railway (Bankura-Indas Section) ...	42·50

With these additions the total mileage open on 31st March 1917 was as follows :—

	Miles.
Standard (5′ 6″) gauge	1461·16
Metre (3′ 3⅜″) „	1215·31
Narrow (2′ 6″) „	232·55
„ 2′ 0″ „	183·40
	3092·42

Lines under construction.

427. The following lines were under construction during the year :—

(1) *Mymensingh Bhairab-Bazar Railway—Length 99·68 miles—Gauge, metre.*

This line commences at Bhairab Bazar, a station on the Assam Bengal Railway on the right bank of the Megna river opposite to Ashuganj Railway station and runs north for 60 miles to Gaurigram Junction ; it then turns west for 11 miles to Mymensingh, a station on the Eastern Bengal Railway.

From Gaurigram Junction the line runs north for 5 miles to Shamgunj Junction and then north-east for 10 miles to Netrakona, on the Mogra river. There is also a branch 10 miles in length from Shamgunj Junction running north to Jaria Jhangail on the Kongsa river. The country traversed by the railway is everywhere flat, low-lying and densely populated. Jute and rice are the chief products.

A concession to construct this line was granted, under the Government of India's rebate and guaranteed terms combined, to Messrs. Gillanders, Arbuthnot & Co. and Killick, Nixon & Co. The construction was well advanced and 31·25 miles were opened for goods traffic during the year.

(2) *Bankura-Damodar River Railway—Length 60·60 miles—Gauge 2′ 6″.*

The line commences at Bankura station on the Bengal-Nagpur Railway, and takes a north-easterly course for the first 20 miles, and then a south-easterly course towards the river Damodar for 40 miles where it ends.

The first 35 miles of the railway run through rolling country with moorum soil, but further on rice fields and a dense population form the principal feature of the country. The great barrier in the way of transporting the produce of the country to any important market was formerly the river Damodar, but it can now be carried by the railway to Bankura.

Messrs. McLeod & Co. weregranteda concession to construct this line under the Govrnment of India's Branch Line (guaranteed) terms.

(3) *Ahmedpur-Katwa Railway—Length 32·26 miles—Gauge 2' 6".*

The line commences at Ahmedpur station on the loop line of the East Indian Railway, takes an easterly course with a southern tendency and joins the branch of the East Indian Railway, running from Azimganj to Katwa, at a point about 2½ miles from Katwa, from which point the two gauges run together over the existing Adjai Bridge, separating again when entering Katwa junction.

The line is under construction by Messrs. McLeod & Co. under the branch line (guaranteed) terms.

(4) *Kalighat-Falta Railway—Length 25·33 miles—Gauge 2' 6".*

The line starts in the neighbourhood of Kalighat in the southern suburbs of Calcutta, and runs south for the first half of its length and for the latter half west to the river and terminates at Falta station.

The work of construction is being undertaken by Messrs. McLeod & Co. under the Government of India's branch line terms.

(5) *Dasghara-Jamalpurganj Branch of the Bengal Provincial Railway—Length 8·31 miles—Gauge 2' 6".*

This branch was under construction by the Bengal Provincial Railway Company under the Government of India's branch line (guaranteed) terms. It takes off from the main line at Dasghara station and taps the country lying on either side of the Damodar river from Mohunpur to Hybatpur and opens up the important marts of Kalna, Jamalpur and Kalera.

(6) *Khulna-Bagerhat Railway—Length 20·53 miles—Gauge 2' 6".*

The line is intended to connect the town of Khulna, the terminus of the Central Branch of the Eastern Bengal Railway with Bagerhat. The country traversed by the railway lies in the Khulna district which is purely agricultural. A concession was granted, under the branch line terms, to Messrs. Ambalal, Himatlal & Co. of Ahmedabad for the construction of the line, which is being undertaken by the Eastern Bengal Railway on their behalf.

Surveys sanctioned.

428. During the year under review the following surveys were sanctioned :—

(1) Midnapore District Feeder Railways Reconnaissance Survey.
(2) Raiganj-Eklakhi Railway Reconnaissance Survey.
(3) Khulna-Dum-Dum Chord Railway Reconnaissance Survey.
(4) Jessore-Faridpur Railway Reconnaissance Survey.
(5) The Diamond Harbour Branch Kakdwip Extension Reconnaissance Survey.
(6) Comilla-Sreemuddi-Gangasagar Railway Reconnaissance Survey.
(7) Tangi-Gopalpur Railway Survey.
(8) Gopalpur-Jamalpur Railway Reconnaissance Survey.
(9) Kholapota-Baduria Branch Railway Survey.
(10) Mymensingh-Jamalpur-Bakshiganj Railway Survey.
(11) Magra Hât-Kulpi-Kharee Railway Reconnaissance Survey.
(12) Netrakona-Mohanganj Survey.

Canals—Irrigation and Navigation.

[Administration Report of Irrigation Works for the year 1916-17. Statistics of British India, Part III —Commercial Service.]

429. The transactions of the Irrigation Department, Bengal Presidency, for the year 1916-17 are exhibited in the following statement so far as they relate to works of Irrigation and Navigation :— **Capital and Revenue Accounts.**

CAPITAL ACCOUNT.

Heads.	Amount of construction estimate.	Expenditure during 1916-17.	Expenditure to end of 1916-17.	Balance for expenditure from 1st April 1917.
	Rs.	Rs.	Rs.	Rs.
Major Irrigation Works.				
Direct charges ...	1,08,59,937	.....	1,08,59,937	.....
Indirect charges ...	2,48,678	.....	2,48,678	.....
Total ...	1,11,08,615	.....	1,11,08,615	.....
Minor Works and Navigation.				
Direct charges ...	1,33,85,159	7,11,709	1,32,02,502	1,82,657
Indirect charges ...	1,61,357	12,516	1,99,149	(-)37,792
Total ...	1,35,46,516	7,24,225	1,34,01,651	1,44,865

REVENUE ACCOUNT.

Heads.	Receipts.	WORKING EXPENSES.			Net Revenue.
		Direct.	Indirect.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Major Irrigation Works ...	2,89,408	1,85,481	13,023	1,98,504	90,904
Minor Works and Navigation.					
Works for which Capital and Revenue Accounts are kept	6,60,726	3,25,708	13,484	3,39,192	3,21,534
Works for which only Revenue Accounts are kept	31,505	1,28,390	11,924	1,40,314	(-)1,08,809
Works for which neither Capital nor Revenue Accounts are kept ...	39,618	55,784	...	55,784	(-)16,166

430. The following statement shows the areas irrigated during the year as compared with the average of the triennial period ending March 1916 :— **Irrigation.**

	MIDNAPORE CANAL (MAJOR WORKS).			EDEN CANAL (MINOR WORKS).		
	Kharif, inclusive of hot weather.	*Rabi.*	Total.	*Kharif*, inclusive of hot weather.	*Rabi.*	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Average of the triennium ending March 1916 ...	79,547	1,166	80,713	23,284	254	23,538
For 1916-17	85,827	...	85,827	28,555	344	28,899

Lengths of Canals.

431. The following statement shows the lengths of canals and distributaries which were in operation during the year 1916-17 :—

	Midnapore Canal.	Eden Canal.
	Miles.	Miles.
Main canals, irrigation	53·00	27½
Branch canals, ditto	16·75	
Distributaries of above	254·54	17⅔
Navigable channels	69·75	...

Navigation.

432. The following statement shows the traffic on the navigable canals during the year 1916-17 as compared with the average of the triennium ending March 1916 :—

	Midnapore Canal.		Hijili Tidal Canal.		Calcutta and Eastern Canals.		Madaripur Bhil Route.		Orissa Coast Canal.		Nadia Rivers.	
	Average of the triennium ending March 1916.	For the year 1916-17.	Average of the triennium ending March 1916.	For the year 1916-17.	Average of the triennium ending March 1916.	For the year 1916-17.	Average of the triennium ending March 1916.	For the year 1916-17.	Average of the triennium ending March 1916.	For the year 1916-17.	Average of the triennium ending March 1916.	For the year 1916-17.
Length of canal open ... Miles	69¾	69¾	29	49¾	1,138	1,184	26⅔	38	48½	54½	489⅔	488½
Receipts ... Rs.	39,045	38,444	37,102	55,598	3,18,734	2,98,117	1,11,607	3,36,127	9,425	12,370	18,619	15,075
Tonnage of boats by canal measurement ... Tons	384,474	324,092	154,169	211,630	848,978	791,797	350,962	1,035,637	73,621	98,998	95,657	75,299
Estimated weight of cargo ... ,,	79,802	59,786	54,530	84,808	562,793	534,619	353,957	1,219,780	24,814	34,649	70,606	54,792
Estimated value of goods ... Rs.	80,24,955	65,92,107	44,51,704	62,72,021	6,37,92,098	6,30,07,529	4,81,13,529	15,93,38,591	11,74,207	27,47,047	1,01,21,037	69,25,113
Estimated value of rafts ... ,,	7,559	5,147	7,059	4,650	42,802	38,788	4,959	2,853	22,057	38,482	27,270	30,894

In accordance with the instructions of the Government of India the discharges of certain rivers as shown below were observed during the year under review :—

SOUTH-WESTERN CIRCLE.

Damodar River.

Date.	Discharges in cusecs at—			
	Jhanpur.	Salalpur.	Jujuty.	Jamalpur.
7th October 1916	...	...	53,016	...
16th ,, ,,	...	...	10,022	...
24th ,, ,,	...	...	6,379	...
30th ,, ,,	...	...	16,550	...
21st ,, ,,	...	9,036	...	...
6th ,, ,,	...	...	...	48,705
16th ,, ,,	...	...	...	16,184
22nd ,, ,,	...	...	...	7,151
29th ,, ,,	...	...	...	21,915
8th November ,,	...	...	5,688	...
15th ,, ,,	...	...	5,666	...
21st ,, ,,	...	...	3,232	...
30th ,, ,,	...	...	2,532	...
27th ,, ,,	...	1,941	...	...
19th ,, ,,	...	...	...	5,273
28th ,, ,,	...	...	...	1,691
9th December ,,	...	...	3,211	...
17th ,, ,,	...	2,402	2,738	...
24th ,, ,,	...	...	2,654	1,412
31st ,, ,,	...	...	2,577	...
16th ,, ,,	...	...	...	1,598
17th January 1917	...	...	751	...
31st ,, ,,	...	...	476	...
4th ,, ,,	...	2,206	...	...
17th ,, ,,	...	1,352	...	...
31st ,, ,,	...	685	...	...
16th ,, ,,	...	...	...	804
29th ,, ,,	...	...	...	397
15th February ,,	...	1,294	978	...

Date.	Discharges in cusecs at—			
	Jhanpur.	Salalpur.	Jujuty	Jamalpur
28th February 1917 ...	...	549	587	.....
14th „ „ ...	...	...	...	650
26th „ „ ...	...	...	...	607
4th March „ ...	427	...	...	...
5th „ „ ...	396	...	...	...
6th „ „ ...	424	...	...	...
7th „ „ ...	434	...	...	...
8th „ „ ...	450	...	...	...
9th „ „ ...	512	...	...	...
10th „ „ ...	451	...	...	...
12th „ „ ...	686	...	...	...
13th „ „ ...	532	...	...	...
14th „ „ ...	488	...	...	...
15th „ „ ...	399	509	...	558
16th „ „ ...	354	...	...	...
17th „ „ ...	265	...	...	...
18th „ „ ...	275	...	...	...
19th „ „ ...	265	...	...	...
20th „ „ ...	252	...	...	...
31st „ „ ...	...	...	...	52

Ajai River.

Date.	Locality.	Discharge taken by means of velocity rods. C.ft. per second.
		C.ft.
18th June 1916	... Satkahonia	... 5,629
28th „ „	... Ditto	... 2,234
17th July „	... Ditto	... 2,961
31st „ „	... Ditto	... 6,124
8th October „	... Ditto	... 12,856
15th „ „	... Ditto	... 8,996
24th „ „	... Ditto	... 2,050
30th „ „	... Ditto	... 6,471
15th November „	... Ditto	... 1,560
30th „ „	... Ditto	... 822
15th December „	... Ditto	... 874
31st „ „	... Ditto	... 382
15th January 1917	... Ditto	... 237

CENTRAL CIRCLE.

Names of Rivers.	September 1916.				October 1916.			
	Maximum discharge.		Minimum discharge.		Maximum discharge.		Minimum discharge.	
	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.
District Birbhum—								
More	22nd	57,504	15th	1,137	3rd	110,830	29th	969
Bansloe	22nd	22,823	15th	239	3rd	35,970	30th	310
Brahmini ...	22nd	15,495	20th	166	3rd	24,494	19th	327

Classification of Irrigation and Navigation Works.

433. The classification of works dealt with in this review is as follows :—

Account—"49-Major Works".—In these are included the Midnapore and Hijili Tidal Canals. The latter is used for navigation only, while the former provides for both irrigation and navigation. The original Capital Accounts of these canals have been closed and all present capital outlay is charged against head "43-Minor Works and Navigation." The Revenue Account is shown under "42-Major Works—Working Expenses".

Account—43-Minor Works and Navigation".—(*i*) The works for which Capital and Revenue Accounts are kept include the Calcutta and Eastern Canals and the Madaripur Bhil Route. These are intended for navigation. (*ii*) The works for which only Revenue Accounts are kept, are the Nadia Rivers, the Gaighatta and Baxi khal, and a part of the Orissa Coast Canal. These are all used for navigation only. Under (*ii*) is also included the

Magra Hât Drainage Scheme in the 24-Parganas district, which has been carried out under the provisions of the Bengal Sanitary Drainage Act. The Utterbhag Lock which has been constructed in connection with the Magra Hât Drainage Scheme, and of which the accounts were previously shown under (*i*), has since been amalgamated in the Drainage Scheme. (*iii*) The works for which neither Capital nor Revenue Accounts are kept include (*a*) the Eden Canal, which is used partly for irrigation, and partly to afford a supply of water for drinking and sanitation, and (*b*) training works carried out for the conservancy of the rivers Ganges, Bhagirathi, Dhaleswari and Buriganga.

The transactions of the year for each of the above works are briefly described in the following summary which is given for convenience by Circles of Superintendence.

SOUTH-WESTERN CIRCLE.

Major Irrigation Works.

Midnapore Canal.

Capital Outlay.

431. There was no outlay chargeable to the Capital Account of the canal. The total capital outlay (direct charges) to end of the year was Rs. 83,09,132.

Rainfall.

435. The rainfall at Midnapore during the year was 70·43 inches as compared with 55·41 inches of the previous year. There were no abnormal floods in the Cossye River during the year.

Irrigation.

436. The area irrigated from the canal was 85,827 acres against 83,649 acres during the year 1915-16.

The cash realization on account of water-rates during the year was Rs. 1,69,016 against a total demand of Rs. 1,70,439. The amount remitted or written off during the year was Rs. 341 as compared with Rs. 682 in the preceding year. The balance unrealized at the end of the year was Rs. 1,082. The collection of water-rates on this canal continues in a satisfactory state. The rate for long-term leases was raised from Re. 1-8 to Rs. 2 per acre with effect from 1st April 1905. The question of further enhancing the rate has been held in abeyance.

Navigation.

437. The navigation receipts during the year were practically the same as in the previous year, being Rs. 37,187 as against Rs. 37,763 during the year 1915-16.

Financial Results.

438. The gross revenue and working expenses (direct and indirect) of the Midnapore canal amounted to Rs. 2,31,810 and Rs. 1,70,529, respectively, as against Rs. 2,28,810 and Rs. 1,45,737 in the preceding year.

Hijili Tidal Canal.

Hijili Tidal Canal.

439. There was no outlay chargeable to the Capital Account of the canal during the year. The total capital outlay (direct charges) to the end of the year amounted to Rs. 25,50,805. The gross revenue and working expenses (direct and indirect) of the canal amounted to Rs. 57,598 and Rs. 27,975, respectively, as against Rs. 48,988 and Rs. 60,862 in 1915-16. The result was a profit of Rs. 29,623 against a loss of Rs. 11,874 in the preceding year. The increase in "gross receipts" was due to a larger volume of traffic using the canal during the year. As no silt clearance had to be undertaken during the year the working expenses were less.

Minor Works and Navigation.

Calcutta and Eastern Canals.

Capital Account.

440. A sum of Rs. 5,10,645 (direct charges) debitable to the Capital Account of the canals was expended during the year inclusive of a credit of Rs. 1,03,284 on account of the hire of the dredgers *Foyers* and *Alexandra*. The principal item of expenditure of the year was on account of the improvement of the Gabkhan Bharani khal from Chowkighata to Jhalakati. Owing to the introduction of a revised hire rate for the dredger *Foyers* a sum

of Rs. 2,01,305 was adjusted and debited to Tools and Plant Capital Account of the canals during the year.

441. The receipts from navigation tolls amounted to Rs. 2,98,117 as compared with Rs. 3,03,189 in the preceding year. The gross receipts and working expenses (direct and indirect) amounted to Rs. 3,22,179 and Rs. 2,69,679, respectively, as against Rs. 3,23,155 and Rs. 6,22,715 in 1915-16, the result being a profit of Rs. 52,500 against a loss of Rs. 2,99,560 in the preceding year. Navigation receipts.

Madaripur Bhil Route.

442. The expenditure (direct charges) debitable to the Capital Account of the project was Rs. 1,72,673 for works only. This includes a credit of Rs. 79,200 due to the introduction of the revised hire rate of the dredger *Foyers*. The expenditure was incurred chiefly on (1) dredging the Lower Kumar river and (2) constructing an embankment with sluices along the south bank of the Canal. The total capital outlay (direct charges) to end of 1916-17 amounted to Rs. 38,39,976 against the sanctioned estimate of Rs. 34,32,491. A complete revised estimate for the project providing for the above works, also for widening the channel to a bed width of 320 feet, was submitted to the Government of India for their approval and for the sanction of the Secretary of State in May 1917. It was also suggested that the construction estimate should be closed with effect from the 31st March 1917. Capital Account.

As the sanctioned works have already been carried to an advanced state of completion, the Government of India have decided that it will not serve any useful purpose to sanction a revised estimate, but that the construction estimate should be closed as proposed and a completion report prepared in respect of the works which have already been sanctioned and executed. The completion report is now being prepared.

443. The receipts and working expenses (direct and indirect) during the year were, respectively, Rs. 3,38,547 and Rs. 69,513 against Rs. 1,87,704 and Rs. 1,24,410 in the year 1915-16. The increase in receipts is due to the western entrance of the canal at Manikdah remaining free from silt deposit throughout the season, as a result of the construction of the bund along the south bank of the canal; this also accounts for the decrease in working expenses. Navigation receipts.

Orissa Coast Canal.

444. This canal, which is intended for navigation only, lies partly (54½ miles) in this Presidency and partly in the province of Bihar and Orissa. It has been decided that each Government will deal with the lengths lying within their territorial limits. The receipts and working expenses (direct and indirect) for the year were Rs. 14,142 and Rs. 18,347, respectively, as against Rs. 11,106 and Rs. 16,533 in the previous year. Orissa Coast Canal.

Gaighatta and Baxi Khal.

445. The receipts for the year were Rs. 1,575 against Rs. 4,025 in the preceding year. No expenditure was incurred on maintenance and repairs of the khal. The collection of tolls on boat traffic was leased out for one year from 1st April 1916 to 31st March 1917 at a rental of Rs. 2,750, which is less than the sum realized in the preceding year owing to one ferry being abolished and the construction of a bridge over the khal at the ferry site. Gaighatta and Baxi Khal.

Eden Canal.

446. The receipts and working expenses amounted to Rs. 39,618 and Rs. 55,784, respectively, as against Rs. 36,985 and Rs. 72,658 in the year 1915-16. The works in connection with the new supply channel with a sluice and stop dam at Jhanpur were completed during the year. The area irrigated from the canal during the year was 3,603 acres more than in the preceding year. This increase was due to an improved supply of canal water during the *kharif* season. Eden Canal.

Utterbhag Lock.

Utterbhag Lock.

447. As the Lock is an integral part of the Magra Hât Drainage Scheme in so far as navigation is concerned, the accounts have been incorporated with those of the Magra Hât Drainage Scheme.

Improvement of the Bidyadhari River.

Bidyadhari River.

448. The work in connection with the improvement of the river by creating a spill area for the river was in progress during the year and an expenditure of Rs. 1,84,879 was incurred to end of the year against the sanctioned estimate of Rs. 2,64,275. The spill operations were commenced during the last quarter of the year from January to March 1917. It is yet too early to say if by these operations any decided improvement in the river has been effected. The cross-sections which have been taken point, however, to some improvement, and the necessity for extending the area of the spill is under consideration.

Investigation.

449. Surveys were continued during the year in connection with the project for mitigating the effects of the Damodar floods. Sites for storage reservoirs in the basin of the Damodar and Barakar rivers were under investigation.

Floods.

450. In the Damodar river there were 11 floods during the year, the highest being on the 23rd September, when the gauge at Edilpur read 19′ 3½″, which was only 9″ lower than the maximum recorded flood of 1913. No material damage was done to the Damodar left embankment. There were also three high floods in the Ajai river during the year and the Schedule D Embankments on its bank were greatly damaged. Enquiries are being made with a view to devise means for lessening the damage caused by these floods.

CENTRAL CIRCLE.

Minor Works and Navigation.

Nadia Rivers.

Nadia Rivers.

451. The approximate length of the channels comprised in the Nadia rivers remained the same as in the previous year. These are as detailed below :—

	Miles.
Faracca channel from the Ganges to Biswanathpur ...	25
Bhagirathi river from the Bhagirathi entrance at Biswanathpur to Nadia	132
Bhairab-Jalangi from entrance to Nadia	163½
Mathabhanga from entrance to junction with the Hooghly ...	136
Hooghly from Nadia to Mathabhanga junction	32
	488½

In addition to the above, a length of 10 miles of the river Gorai from its off-take down to Kushtia and the river Ganges from Rajmahal to Goalundo, a distance of 152 miles, are comprised within the charge of the Nadia Rivers Division, but are not included under the head Nadia Rivers. The Gorai has not been declared under the Canals Act.

No Capital Account is kept.

The receipts and working expenses (direct and indirect) were Rs. 15,788 and Rs. 1,21,976, respectively, as against Rs. 16,316 and Rs. 1,14,483 in the preceding year.

A brief description of the rivers comprised in the Nadia rivers system is given below.

Bhagirathi River.

452. This river is 157 miles in length from the Faracca off-take down to Nadia ; the length below Nadia down to junction with the river Mathabhanga being known as the Hooghly. The first 25 miles is a Sota of the Ganges called the Faracca channel, the next reach of 68 miles from below Biswanathpur to Dadpur is known as the Upper Bhagirathi, and the remaining reach of 64 miles down to Nadia is known as the Lower Bhagirathi. The Lower Bhagirathi is

again divided into (*a*) the Upper Reach from Dadpur to Katwa and (*b*) the Lower Reach from Katwa to Nadia. The Bhagirathi is not now used for navigation by steamers with regular services. An occasional local service is maintained during the monsoon months between Berhampur and Azimganj. During the year under review this local service was maintained from 26th July 1916 to 4th December 1916. Boat traffic is maintained from the middle of June to the beginning of December, and for the remainder of the year, traffic is limited to small fishing boats and *dongas*.

Twenty-five shoals, with an aggregate length of 59,400 feet, were trained as against 23 and 62,800 feet, respectively, in the previous year.

The minimum depth of water in the river at the end of March was :—

Reach of river.	Least depth of water.						Width of channel.
	1915.		1916.		1917.		
	Ft.	In.	Ft.	In.	Ft.	In.	
Entrance from Ganges ...	1	0	dry		0	3	More than 25 feet.
Thence to Garia ...	0	9	0	5	0	6	
Garia to Jangipur ...	0	6	0	5	0	6	
Jangipur to Berhampur ...	0	9	1	0	1	0	
Berhampur to Katwa ...	0	3	0	6	0	9	
Katwa to Nadia ...	2	0	2	0	1	9	

Bhairab Jalangi River.

453. This river is divided into three different lengths, viz. :—

(*a*) The Bhairab, from the off-take down to Mukhtiarpur.

(*b*) The Upper Jalangi from Mukhtiarpur to Gopinathpur.

(*c*) The Lower Jalangi from Gopinathpur to Nadia.

No steamers plied on this river during the year, but through boat traffic was maintained throughout the whole length from July to the middle of December 1916, while small boats plied throughout the year from Mukhtiarpur down to Nadia. There were altogether 13 shoals trained during the year as against 12 last year.

Mathabhanga River.

454. The Mathabhanga river takes off from the Ganges about 5 miles above the village of Jalangi and joins the Hooghly below Chakdah. The length from the off-take to Munshiganj is known as the Upper Mathabhanga and below to the Hooghly junction as the Lower Mathabhanga. The river was navigable for boat traffic from June to November 1916, but intermediate traffic was kept up in the Lower Reach throughout the year. Four shoals, with an aggregate length of 2,698 feet were trained against the same number and of about the same length during the previous year.

Ganges River between Rajmahal and Goalundo.

455. The training works in connection with the conservancy of the River Ganges were carried out during the year through the agency of the India General Navigation and Railway Company, Limited, under Government supervision. Between Rajmahal and Damukdia four shoals were trained as against six in the previous year. Two shoals were also trained between Damukdia and Goalundo. The formation of shoals in this length of the river is a new development and the cost of the season's operations to Government was Rs. 8,192 against Rs. 10,339 in the previous year.

The entrance to the Bhagirathi River from the Ganges.

456. For some years past dredging operations have been conducted at the off-take of the Bhagirathi river from the Faracca channel of the Ganges. This by-channel commences at Faracca and rejoins the Ganges about four miles below the off-take of the Bhagirathi river. During the year the dredger *Nemotha* was chartered from the India General Navigation and Railway Company, Limited. She worked for 61 days and dredged a total length of 9,334 feet. Bandalling and scraping were also carried out. The operations were not particularly successful owing to adverse circumstances. The total expenditure incurred was Rs. 12,679 against Rs. 15,157 in the previous season.

Discharge observations.

457. During the year under review discharge observations were taken of the rivers Bhagirathi, Bhairab-Jalangi, and Mathabhanga at a cost of Rs. 8,405 for works only against an expenditure of Rs. 9,579 in the previous year. The objects of these observations are (*i*) to determine the various sources from which the Hooghly derives its fresh water supply, and (*ii*) to devise a means of improvement in the general *régime* of the river.

Upper Hooghly and its feeder rivers.

458. The report on the Nadia rivers submitted by Major F. C. Hirst, I.A., Director of Surveys, Bengal, was published during the year, and a Committee was appointed in February 1917 to advise Government upon the steps which should be taken to carry out systematic observations of the changes in the Nadia rivers, and also, if possible, to improve their condition as navigable channels and as feeders for the Lower Hooghly. The Committee have not yet finished their deliberations.

The Gorai river.

459. This river takes off from the Ganges about 12 miles below the Hardinge Bridge over the Ganges.

The entrance is not stable and is of a shifting character. In 1912 the entrance changed to its present position and for some years gradually improved, with the result that a much larger volume of water entered and passed down to the lower reaches where the river is called the Madhumati. During the year under review a very considerable change has taken place at the entrance and a new channel has opened out which carries off a large volume of water in an easterly direction, back into the Ganges lower down. These changes in the Gorai have important effects on the Madhumati and consequently in the Madhumati entrance of the Madaripur Bhil Route.

Floods.

460. There were no floods of an extraordinary character in any of the Nadia rivers during the year.

The abnormal and heavy floods in the Ajai river in October 1916, however, maintained a very high level in the Bhagirathi until it had been passed off.

Anti-malarial projects.

461. A project known as the Bistupur-Bhil Project has been worked since the year 1909.

Briefly the object aimed at is to silt up a large *jhil* in the close vicinity of the town of Berhampur. The project has been a partial success and will be continued.

NORTHERN CIRCLE.

Ganges River at Rampur Boalia.

462. Training works were carried out in the inner channel of the river Ganges at Rampur Boalia by means of bandalling operations in order to improve navigation, sanitary conditions and water-supply of the town. The operations were successful. The total amount spent on the operations was Rs. 7,432, towards which the Steamer Companies and the District Board contributed Rs. 4,000. As the Government grant for the work was Rs. 5,000, the unexpended contribution of Rs. 1,568 is available for expenditure during 1917-18.

EASTERN CIRCLE.

Dhaleswari and Buriganga Rivers.

463. Training works for the improvement of the Dhaleswari and Buriganga rivers for navigation and for the water-supply of the town of Dacca were carried out during the year by bandalling operations only at a cost of Rs. 32,912. No dredging was done by the Department, but the Inland Steamer Companies did some dredging on their own account at the Postgola shoal in the river Buriganga near Dacca. These operations were fairly successful.

Embankment and Drainage.

[The Embankment and Drainage Works for the year 1916-17.]

Expenditure.

464. The expenditure on embankments, including the charges for establishment and tools and plant, was Rs. 5,90,267 and on drainage works Rs. 41,856 during the year.

Length of embankments.

465. The total length of embankments of all classes maintained by Government is 1,358 miles ; this length is 10 miles less than that given in the report for 1915-16 and is due to the abandonment of certain portions in Schedule D embankments Nos. 82, 83 and 84, which it was found unnecessary to maintain in the public interest in consequence of the construction of an

embankment on the right bank of the Peali river from Mowtolla to Utterbhag. These embankments protect an area of 3,794,335 acres.

Floods and breaches.

466. The year was an eventful one owing to the high floods in the Damodar and Ajai rivers.

In the Damodar river there were altogether 11 floods, the highest recorded during the year occurring on the 23rd September 1916, when the gauge at Raniganj rose to 19 feet and that at Edilpur to 19 feet 3½ inches as against 22 feet 11 inches at Raniganj and 20 feet 1 inch at Edilpur at the time of the big flood in 1913.

The maximum discharge of 1916 has been calculated to be 393,000 cubic feet per second as against 624,000 cubic feet per second in 1913.

On the 3rd of October 1916, another flood was recorded with a maximum discharge of 237,000 cubic feet per second with a gauge of 15 feet 6 inches at Raniganj and 17 feet ½ inch at Edilpur.

From an analysis of the gauge readings during the floods of 1909, 1913 and 1916 it has been deduced that the alterations which are going on in the spill area of the Damodar have had the effect of increasing the flood-level at Edilpur by 1 foot during the 7-year period 1909-10 to 1915-16; the average increase in level between 1907—1916 is calculated to be 1 foot 1½ inches. It is thus abundantly clear if the left embankment is to be maintained, that we must be prepared to raise the embankment gradually as the flood-level rises.

No material damage was done to the left embankment by the floods owing to the way in which the embankment was guarded and timely action taken in dealing with percolations and holes which appeared in the embankment.

There were 9 breaches in the Damodar right embankment Schedule D, No. 36; some of these breaches were caused by water from the spill area forcing its way back into the Damodar.

In the Ajai river there were 3 high floods during the year. The highest occurred on the 23rd of September 1916, when the gauge at Satkahonia read 22 feet 8 inches, which is the highest recorded flood in the annals of this river, being 1 foot 11 inches higher than the maximum recorded flood of 1899.

Schedule D embankments Nos. 28, 29 and 30, on the right bank of the Ajai, were severely damaged and a large area of the country in the districts of Burdwan and Murshidabad was submerged.

The Ajai is a torrential river and the slopes of the country in the catchment area are steep; the result is that any heavy rainfall even in the remote reaches of the catchment takes little time to reach the river channel whose capacity is overtaxed. The causes of this very heavy flood have been carefully enquired into and steps have been taken to repair and raise the embankments.

A high flood was also recorded in the Kaliaghye river in the Midnapore district in the early part of October 1916. The gauge reading recorded at Amgachia on the 7th of October 1916 was 20·30 as compared with 20·87, the highest reading on record on the 20th of September 1915. No damage was done to the protective embankments on this river.

A cyclonic storm formed in the Bay of Bengal about the middle of September 1916, and on the 21st of September an acute depression was recorded at the head of the Bay, centre being near Sandheads. The storm centre then passed over to Calcutta when the barometer registered 28·55 at the Alipore Observatory. This storm caused considerable damage to the protective works on the 62nd mile of the 24-Parganas-Hooghly left embankment at Diamond Harbour.

In the rivers Damodar, Rupnarain and Hooghly generally there were floods higher than those of ordinary years.

Surveys.

467. (1) The bench marks in the Nadia Rivers Division were carefully checked from G. T. Survey bench marks and readjusted to the new values given to those bench marks in 1909.

(2) Surveys in connection with the proposed escape channel through the Chetua circuit in the district of Midnapore were completed.

(3) Surveys in connection with the improvement of the Hoorhoora khal in the district of Midnapore were also completed.

(4) Surveys and investigations in connection with the Soadighi and Gangakhali drainage project in the district of Midnapore were completed.

(5) Surveys and investigations in connection with the drainage channels and drainage sluice at Mellock in the 5th mile of the Rupnarain left embankment were also completed.

(6) Surveys and investigations in connection with the selection of sites for reservoirs for impounding flood water of the river Damodar were continued. A site at Karamdaho in the Barakar valley was selected and detail contour surveys made for a reservoir at this site.

(7) The Sunderbans embankment from the 80th to the 159th mile were re-surveyed with the object of framing an estimate for re-sectioning the same.

(8) Cross sections of the Bidyadhari river in connection with schemes for improvement thereof were taken at intervals, as in preceding years.

Works undertaken under the provisions of—

(a) the Bengal Drainage Act, VI of 1880.

468. The Dankuni, Howrah, Rajapore and Burrajola drainage works were maintained at a cost of Rs. 15,812 against the average amount of Rs. 11,300 fixed for their maintenance.

(b) The Bengal Sanitary Drainage Act, VIII of 1895.

469. The only work which has been carried out under the Act is the Magra Hât drainage scheme which provides for navigation as well as drainage. It has been constructed at a cost of Rs. 20,57,590. It was maintained during the year at an expenditure of Rs. 20,865. The navigation tolls on this system of canals brought in a revenue of Rs. 22,287.

(c) The Bengal Embankment Act, II of 1882.

470. The construction of a seven-vented sluice at Mahamaya on the right bank of the Moni river in the district of 24-Parganas, which was in progress from the preceding year, was practically brought to completion during the year. The total expenditure on the work up to the end of the year was Rs. 1,41,446.

A large number of sluices in Schedule D embankments were efficiently maintained at the cost of the estates benefited.

CHAPTER V.—REVENUE AND FINANCE.

A.—Gross Revenue.

471. The following statement shows the gross revenue (*i.e.*, the total of Imperial and Provincial Revenues) for 1916-17 as compared with that of 1915-16 :— **Gross Revenue.**

[The figures are in thousands.]

Receipts.	1915-16.			1916-17.		
	Imperial.	Provincial.	Total.	Imperial	Provincial.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Principal Heads of Revenue—						
I.—Land Revenue ...	1,33,35	1,65,62	2,98,97	1,43,78	1,64,99	3,08,78
II.—Opium	2,45,66	...	2,45,66	4,12,42	...	4,12,42
III.—Salt	1,23,67	...	1,23,67	1,34,05	...	1,34,05
IV.—Stamp	1,12,19	1,12,19	2,24,38	1,20,76	1,20,76	2,41,52
V.—Excise	...	1,51,40	1,51,40	...	1,44,44	1,44,44
VI.—Provincial Rates ...	...	2,34	2,34	...	1,35	1,35
VII.—Customs	2,74,02	...	2,74,02	5,04,19	...	5,04,19
VIII.—Income-tax ...	36,13	36,13	72,26	84,28	84,28	1,68,54
IX.—Forests... ...	...	11,46	11,46	...	13,39	13,39
X.—Registration ...	...	20,36	20,36	...	21,49	21,50
XI.—Tributes... ...	68	...	68	68	...	68
Total ...	9,25,70	4,99,50	14,25,20	14,00,16	5,50,70	19,50,86
XII.—Interest	11,67	4,63	16,30	11,53	6,49	18,02
Receipts by Civil Department—						
XVI.—Law and Justice—						
A.—Courts of Law ...	...	8,44	8,44	...	9,21	9,21
B.—Jails ...	...	9,09	9,09	...	12,13	12,13
XVII.—Police	...	1,91	1,91	...	1,84	1,84
XVIII.—Ports and Pilotage ...	...	13,49	13,49	...	12,61	12,61
XIX.—Education ...	...	8,87	8,87	...	9,47	9,47
XXA.—Medical	...	3,60	3,60	...	4,52	4,52
XXB.—Sanitation... ...	...	1	1	...	3	3
XXIA.—Agriculture ...	...	1,01	1,01	...	1,16	1,16
XXIB.—Scientific and Miscellaneous Departments.	...	6,05	6,05	...	12,60	12,60
Total ...	...	52,47	52,47	...	63,57	63,57
Miscellaneous—						
XXII.—Receipts in aid of Superannuation.	1,71	55	2,26	1,93	59	2,52
XXIII.—Stationery and Printing	...	1,33	1,33	...	1,50	1,50
XXV.—Miscellaneous ...	58	6,65	7,23	40	6,88	7,28
Total ...	2,29	8,53	10,82	2,33	8,97	11,30
Irrigation—						
XXIX.—Major Works (Direct Receipts).	1,39	1,39	2,78	1,45	1,45	2,90
XXX.—Minor Works and Navigation—						
By Public Works Department.	3,14	3,14	6,28	3,92	3,92	7,84
By Civil Department ...	26	26	52	25	25	50
Total ...	4,79	4,79	9,58	5,62	5,62	11,24
Buildings and Roads—						
XXXI.—Civil Works—						
By Public Works Department.	76	4,72	5,48	1,16	5,67	6,83
By Civil Department ...	...	1,46	1,46	...	2,91	2,91
Total ...	76	6,18	6,94	1,16	8,58	9,74
Transfer between Imperial and Provincial Revenues.	-58,50	+58,50	...	-23,48	+23,48	...
Grand Total ...	8,86,71	6,34,60	15,21,31	13,97,32	6,67,41	20,64,73

The chief variations are explained in the sections on Imperial and Provincial Finances.

B.—Imperial Revenue and Finance.

Receipts.

472. The following statement shows the Imperial receipts in 1916-17 as compared with those of 1915-16 :—

Major heads of receipts.	1915-16.	1916-17.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
I—Land Revenue	1,33,34,785	1,43,78,546	10,43,761	...
II—Opium	2,45,65,780	4,12,42,225	1,66,76,445	...
III—Salt	1,23,67,112	1,34,04,794	10,37,682	...
IV—Stamps	1,12,18,670	1,20,75,985	8,57,315	...
VII—Customs	2,74,02,371	5,04,18,855	2,30,16,484	...
VIII—Income-tax	36,13,305	84,27,628	48,14,323	...
XI—Tributes	67,701	67,701	...	...
XII—Interest	11,66,501	11,52,680	...	13,821
XXII—Receipts in aid of superannuations.	1,70,882	1,93,365	22,483	...
XXIII—Stationery and Printing ...	14	...	...	14
XXV—Miscellaneous	58,178	40,030	...	18,148
XXIX—Major Works—Direct receipts	1,39,039	1,44,866	5,827	...
XXX—Minor Works & Navigation (Civil).	26,408	24,939	...	1,469
XXX—Minor Works & Navigation (P. W.).	3,13,864	3,92,249	78,385	...
XXXI—Civil Works (P. W.) ...	75,667	1,16,184	40,517	...
Transfer between Imperial and Provincial.	—58,49,619	—23,48,329	35,01,290	...
	8,86,70,658	13,97,31,718	5,10,94,512	33,452
Total ...			5,10,61,060	

The variations shown in the above table were mainly due to the following causes :—*Land Revenue*—Larger recoveries of Survey and Settlement charges including arrears in Midnapore, Rajshahi and Dacca. *Opium*—Higher prices obtained at the sales. *Salt*—Decrease in outstandings under the credit system of payment of duty and excessive speculative clearances in anticipation of a rise in duty. *Stamps*—Institution of a large number of Civil suits ; work in connection with settlement operations ; considerable speculation in jute mill shares and additional duty under the Calcutta Improvement Trust Act. *Customs*—New rates of taxation. *Income-tax*—Higher rates of taxation and larger profits of jute mills and coal companies. *Interest*—Gradual repayments of the Kidderpore Dock Loan. *Superannuations*—Smaller outlay on improvements of the Kidderpore Orphangunge Market, the expenditure on which is taken in reduction of receipts. *Miscellaneous*—Smaller recoveries on account of percentage chargeable on European stores owing to the difficulty in obtaining such stores. *Irrigation Major Works*—Good harvests which stimulated traffic. *Irrigation Minor Works (Public Works Department)*—Increased jute traffic. *Civil Works*—Recovery of rent of No. 3, Kailaghat Street, from the Eastern Bengal Railway for 12 months against 6 months in 1915-16 and larger receipts from the sales of buildings. *Transfers between Imperial and*

Provincial—Larger assignments from Provincial due to the establishment of the Patna High Court and to payment of the Imperial share from the enhanced rates of income-tax.

473. The following statement shows the Imperial expenditure in 1916-17 as compared with that of 1915-16 :— Expenditure.

Major heads of expenditure.	1915-16.	1916-17.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
1. Refunds and drawbacks ...	6,35,942	11,11,772	4,75,830	...
2. Assignments and compensations ...	91,923	1,19,444	27,521	...
3. Land revenue	20,35,545	17,07,732	...	3,27,813
4. Opium	20,579	24,250	3,671	...
5. Salt	2,70,435	2,69,181	...	1,254
6. Stamps	2,91,355	3,13,186	21,831	...
9. Customs	13,36,745	13,33,270	...	3,475
10. Income-tax	76,482	81,377	4,895	...
14. Interest on other obligations ...	1,67,592	1,95,957	28,365	...
18. General Administration ...	4,95,531	5,20,401	24,870	...
23. Ecclesiastical	1,89,362	1,70,542	...	18,820
25. Political	5,600	5,400	...	200
26. Scientific and other Miscellaneous Departments.	2,007	1,991	...	16
27. Territorial and Political Pensions	7,21,388	7,25,551	4,163	...
28. Civil Furlough, etc.	219	...	...	219
29. Superannuations, etc.... ...	36,344	33,790	...	2,554
30. Stationery and Printing ...	74,345	86,220	11,875	...
32. Miscellaneous	1,44,686	1,71,713	27,027	...
33. Famine Relief, Civil	...	5,35,496	5,35,496	...
35. Protective Irrigation Works ...	1,722	470	...	1,252
42. Irrigation—Interest on Debt ...	2,02,872	1,92,585	...	10,287
42. Irrigation—Major Works—Interest on Debt (Civil).				
42. Irrigation—Major Works—Working Expenses (P. W.)	98,011	92,902	...	5,109
43. Irrigation—Minor Works—(Civil)	1,022	853	...	169
43. Irrigation—Minor Works—(P. W.)	11,47,225	10,01,007	...	1,46,218
45. Civil Works (Civil)	5,000	11,200	6,200	...
45. Civil Works (P. W.)	9,77,883	9,47,536	...	30,347
	90,29,815	96,53,826	11,71,744	5,47,733
Total ...			6,24,011	

The principal fluctuations are explained as follows :—*Refunds and Drawbacks*—Increased refunds of customs duties owing to smaller shipments of tea and jute. *Assignments and Compensations*—Payment of arrears of malikana. *Land Revenue*—Smaller expenditure on Survey and Settlement operations. *Stamps*—Larger payment of discount with the growth of revenue.

Interest on other obligations—Larger payment on General Provident Fund deposits 1916-17. *Famine Relief*—Outlay on relief operations in Bankura. *Irrigation Minor Works and Navigation* (*Public Works Department*)—Smaller expenditure in the Circular and Eastern Canals and absence of special expenditure in the Angeria Creek.

Land Revenue.

[*See* Chapter II of this Report.]

Canal Revenue.

[*See* Chapter IV of this Report—Canals.]

Sources of Revenue other than Land.

CUSTOMS.

[Report on the Maritime Trade of Bengal for the year 1916-17. Statistics of British India, Part IV.—(*b*) Finance and Revenue Accounts.]

Revenue from Custom.

474. The gross revenue from Customs (inclusive of 3·42 lakhs paid into district Treasuries on account of salt imported into Calcutta) amounted to Rs. 6,06,85,000 against Rs. 3,76,95,000 in the previous year. Refunds amounted to Rs. 9,17,000 against Rs. 5,06,000, so that the net revenue amounted to Rs. 5,97,68,000, representing an increase of 60 per cent. on the previous year's figures. In consequence of the Tariff Amendment Act of 1916 enhancing the rates of import duty, with very few exceptions every item on the import side showed improvement. Items formerly taxed at 1 per cent. and now paying 2½ per cent. duty contributed 4·29 lakhs extra duty: articles once free and now under 2½ per cent. paid an additional Rs. 9·70 lakhs: while for those formerly paying 5 per cent. but now 7½ per cent. the increase was one of Rs. 36·48 lakhs. *Salt*, the duty on which was enhanced by four annas a maund, contributed additional revenue to the extent of Rs. 23·21 lakhs, while cotton goods from the extra 4 per cent. in the last month of the year yielded a bonus of Rs. 6·54 lakhs. Altogether Rs. 80·24 lakhs fresh revenue was derived from the new rates of duty.

The gross import duties amounted to Rs. 459·16 lakhs, of which Rs. 119·49 lakhs (including inland collections) were yielded by salt alone. The collections on account of other articles increased by Rs. 1,09,22 lakhs. This was chiefly due to the increase in the case of cotton goods (Rs. 11·49 lakhs), sugar (Rs. 30·48 lakhs), and miscellaneous goods (Rs. 46·49 lakhs). The export duty collections rose from Rs. 6·29 lakhs to Rs. 147·69 lakhs, the increase being contributed wholly by jute (Rs. 113·05) and tea (Rs. 29·16).

Net income.

475. The net income of the Calcutta Custom House amounted to Rs. 5,83,89,496 against Rs. 3,60,70,508 in 1915-16, representing an increase of 62 per cent. The net income of the subordinate ports increased from Rs. 15,21,549 in the previous year to Rs. 24,63,153 owing chiefly to larger collections from the new export duties on jute and tea.

Cases under the Sea Customs Act.

476. The number of cases under the Sea Customs Act was 384 against 455 in the previous year. Of these 95 cases arose out of notices under section 32; in 15 cases goods were taken over on behalf of Government and 13 of these were disposed of at a profit. In addition to these, 189 cases of misdeclaration of goods were detected, the penalties imposed amounting to Rs. 4,060.

Cases under the Merchandise Marks Act.

477. There were 630 cases of infringement under the Merchandise Marks Act during the year against 638 in the previous year. Of these 282 related to false trade descriptions, and 201 were in respect of piece-goods on which lengths were not properly stamped. The penalties imposed during the year amounted to Rs. 14,569 against Rs. 9,789 in the previous year.

SALT.

[Salt Administration Report for the year 1916-17. Statistics of British India, Part IV.—(*b*) Finance and Revenue Accounts.]

Administration.

478. There was a considerable increase in the operations under the Salt Credit System of payment of duty. Securities to the extent of Rs. 55,22,100 were deposited during the year as compared with Rs. 45,58,800 in 1915-16. The amount of duty debited during the year under the system was Rs. 89,49,431 against Rs. 87,57,960 in the previous year. There were 43 depositors during the year, one of whom closed his account, leaving a balance of 42.

Imports.

479. The total imports into Calcutta decreased by 22·3 per cent. There was a decrease in imports from the United Kingdom, Port Said, Spain, Massowah, Aden and Bombay, while the imports from Madras increased slightly, and 1,021 maunds were received from Tuticorin against *nil* in the previous year. No salt came from Germany.

The decrease in the imports into the Port of Chittagong amounted to 7,87,731 maunds or 45·6 per cent. The imports from the United Kingdom consisted of 9 maunds only against 21 maunds in the previous year. Port Said supplied the largest quantity, while the import from Aden more than doubled itself. The imports from Spain fell from 8,60,072 to 2,56 440 maunds.

Consumption and Prices.

480. The total quantity of salt which passed into consumption in the Province during the year 1916-17 was 70,76,573 maunds exclusive of 41,73,157 maunds, the net export by rail, road or river, but inclusive of 43 maunds educed from saltpetre. There was an increase of 6 annas 6 pies in the average wholesale price per maund of salt inclusive of duty as compared with the previous year, and this is attributed to the rise in the price of imported salt and to the enhancement of the salt duty in March 1916. The average wholesale price per 100 maunds of Liverpool salt as sold from ship's side in the Port of Calcutta, exclusive of duty, was Rs. 145-9-5 against Rs. 142-8-9 in the previous year. In the Ports of Calcutta and Chittagong high prices ruled throughout the year, due to abnormally high freights and lack of tonnage.

Prosecutions.

481. The total number of cases, both detected and undetected, reported during the year was 451 as compared with 223 in 1915-16. Of these 73 were undetected cases. The increase in the number of offences against the salt laws was due to the high price of salt. The total number of cases in which salt or salt earth was seized was 374 against 190 in the previous year.

Financial Results.

482. As compared with 1915-16, receipts show an increase of Rs. 10,37,682 or 8·4 per cent., and charges of Rs. 16,944 or 5·3 per cent. The net revenue was Rs. 1,30,70,723 which was greater than that of the previous year by Rs. 10,20,738 or 8·4 per cent.

Trade in Saltpetre.

483. The quantity of salt educed in the process of refinement of saltpetre was 42 maunds as compared with 40 maunds in 1915-16. There was no production of *sitta* or impure salt. Forty-three maunds of educed salt were sold during the year against 60 maunds in the previous year.

EXCISE.

[The Report on the Administration of the Excise Department, Bengal, 1916-17. Statistics of British India, Part IV—(*b*) Finance and Revenue.]

Re-organization of the Excise and Salt Department.

484. During the year further effect was given to the re-organization scheme by the appointment of a second Deputy Commissioner of Excise and Salt, who was placed in charge of the Dacca, Chittagong and Rajshahi Divisions and was posted to Dacca.

Excise Advisory Committees and Licensing Boards.

485. The recommendations of the Advisory Committees in all the districts were accepted in the majority of cases. In accordance with these recommendations 43 sites were changed, 21 shops abolished and 13 new shops sanctioned. The recommendations of the Committees for the change of sites of 11 shops, for the abolition of 13 shops and for the opening of 11 new shops

were not accepted. The recommendations of the Licensing Boards of Calcutta and suburbs were all accepted.

Revenue. 486. The total excise revenue was Rs. 1,44,07,668 against Rs. 1,51,30,570 for the previous year, showing a decrease of Rs. 7,22,902. The only heads which showed an increase were wines and spirits manufactured in India and excised at tariff rate (Rs. 1,62,706), *tari* (Rs. 23,803), hemp drugs (Rs. 1,03,382). Against this there were large decreases under country-spirit (Rs. 6,20,228), opium (Rs. 2,64,754), *pachwai* (Rs. 1,12,597) and foreign liquor (Rs. 41,643). The net result was that the incidence of the excise revenue fell from five annas three pies to five annas one pie.

Country Spirit. 487. The system of contract supply was the only system in force during the year. The number of shops was reduced by 6 and the consumption decreased by 38,569 proof gallons. The most striking fluctuation was the fall of 65,030 proof gallons in Calcutta, against an increase of 26,461 proof gallons outside Calcutta. The decreased consumption in Calcutta was due to the introduction of the fixed fee system and to the enhancement of the duty from Rs. 6-4-0 to Rs. 9-6-0 per proof gallon from 1st April 1916. The increase in consumption outside Calcutta was mainly due to better agricultural conditions. The largest increase, amounting to 4,693 proof gallons, occurred in Bankura, where famine conditions had prevailed in the previous year, and there was an increase of 1,803 proof gallons in the adjoining district of Midnapore. In the Presidency Division the increase was largest in the 24-Parganas (2,402 proof gallons), Murshidabad (1,114 proof gallons) and Jessore (572 proof gallons). The increase in the Dacca Division was partly due to the replacement of foreign liquor by country spirit owing to the high price of the former. The improvement in economic conditions was most marked in the Rajshahi Division in every district of which consumption increased.

The revenue derived from duty and distillery fees increased by Rs. 3,84,376 while that from license fees decreased by Rs. 10,04,604 ; the result being a total decrease of Rs. 6,20,228.

Tari. 488. The total number of licenses issued for the sale of fermented and fresh *tari* increased from 1,742 to 1,954 and the total receipts from Rs. 4,52,863 to Rs. 4,76,666 or by Rs. 23,803.

Pachwai. 489. The total number of licenses issued was 33,511 as compared with 28,460 in the previous year. The revenue from retail licenses fell from Rs. 8,83,978 to Rs. 7,63,363. The decrease was considerable in Burdwan, Birbhum, Murshidabad, Darjeeling and Midnapore and was due to the high price of rice at the time of settlement.

Foreign liquor. 490. The total number of licenses issued for the wholesale and retail vend of potable foreign liquor, exclusive of licenses for the retail sale of medicated wines and commercial spirits, was 626 against 639 in the previous year. The total receipts from license fees amounted to Rs. 3,26,146 as compared with Rs. 3,67,789 in the previous year. The receipts from duty on Indian-made foreign liquor were Rs. 3,01,820 against Rs. 1,39,114 in the preceding year.

Ganja. 491. The total number of licenses issued in the Presidency for the retail sale of *ganja* was 1,269, as compared with 1,275 in the previous year. The revenue from license fees increased by Rs. 80,792 and that from duty by Rs. 24,787 ; the result being a net increase of Rs. 1,05,579. The consumption of *ganja* was practically stationary, the figures being 2,149 maunds against 2,137 maunds for 1915-1916. Better crops, better prices for jute, and in the neighbourhood of the *ganja mahal*, the short *ganja* crop, which offered less inducement than usual to smuggle on a large scale, led to increased consumption in 16 districts including all those of the Dacca and Rajshahi Divisions. The increase exceeded 10 per cent. in Bogra, Dinajpur, Rangpur, Nadia, Jessore and Malda. The decrease exceeded 10 per cent. only in Calcutta where there was a considerable increase in retail price. The incidence of license fees per seer of *ganja* consumed was Rs. 19·2 and that of duty Rs. 20. The total taxation was Rs. 39·2 per seer as compared with Rs. 38·3 in the preceeding year.

Bhang. 492. The total consumption within the Presidency amounted to 538 maunds against 629 maunds in the previous year. The total revenue, both

from license fees and duty, amounted to Rs. 1,12,483 as compared with Rs. 1,09,646 in 1915-1916.

Charas.

493. The number of retail licenses was 30 against 33 in 1915-1916 and the total revenue amounted to Rs. 48,963 as compared with Rs. 44,306 of the previous year. There was an increase of Rs. 5,696 in the receipts from license fees, whilst receipts from duty decreased by Rs. 1,039.

Opium.

494. The system under which the issue of opium to retail shops is restricted to the estimated local demand continued in the districts in which it had been enforced previously, and was further extended at the beginning of the year to the districts of Noakhali and Tippera and from October onwards to Jalpailguri where there had been a suspicious increase in the issues in the earlier months of the year. The total number of licenses issued for the retail sale of opium was 820 against 824 in 1915-1916. The quantity of opium consumed fell to 1,127 maunds 29 seers, a decrease of 160 maunds 26 seers. Consumption decreased in 21 districts and increased in 6. There was a large decrease of Rs. 2,64,754 in revenue which occurred entirely under the head of duty and was due to a reduction in the quantity issued and to the enhancement of the cost price of the drug. License fees increased by Rs. 49,777.

Cocaine.

495. The total number of licenses issued to chemists, druggists, qualified medical practitioners and dentists for the sale of cocaine was 218 as compared with 204 in 1915-1916; while the license fees realized amounted to Rs. 222 against Rs. 221 in the preceding year. Thirty-eight permits for the possession of cocaine were issued free to managers of hospitals or dispensaries not under Government supervision of which 25 were for tea gardens in Jalpaiguri, and the remainder to charitable dispensaries in various parts of the Presidency. Four permits were issued to dentists and medical practioners. Arrests for illicit possession of cocaine decreased by 840, but in Calcutta the decrease was entirely due to the smaller number of street cases sent up by the police. Although illicit cocaine was scarce at times owing to interruption of supplies there appeared to have been no continuous shortage and the price at the end of the year was lower than it had been in some of the preceding months. In Calcutta 308 ounces were seized by excise officers and 442 ounces by Customs Officers as compared with 509 and 826 ounces, respectively, in the previous year. The total quantity seized in Bengal was 50 lbs. 7 oz. and 188 grains (Avoirdupois) as compared with 86 lbs. 12 oz. and 25 grains in the preceding year.

Excise offenc

496. The total number of persons arrested on charges under the excise and opium laws during the year was 5,303 as compared with 4,780 in the previous year, while 4,700 persons were convicted against 4,226 in 1915-1916.

STAMPS.

[Stamp Administration Report for the three years ending the 31st March 1917. Statistics of British India, Part IV—(*b*) Finance and Revenue.]

Revenue.

497. The total receipts under the Stamp and Court-fees Acts amounted to Rs 2,46,13,677 in 1916-17, an increase of Rs. 19,36,129 or 8·5 per cent. over those of 1915-16. The increase occurred both in judicial and non-judicial stamps. The charges during the year amounted to Rs. 5,99,582, against Rs. 5,52,672 in 1915-16.

Judicial stamps.

498. The sale-proceeds from Court-fee stamps (excluding stamps for copies) rose from Rs. 1,47,36,832 in 1915-16 to Rs. 1,56,85,461. There was a decrease in the Presidency Division, especially in Calcutta, owing to the opening of the Patna High Court, and also to the fact that large probate duties were realized in 1915-16. In all other divisions there were increases, ascribed partly to the institution of a large number of civil suits and partly to the work in connection with the settlement operations.

Non-judicial stamps.

499. The receipts from the sale of non-judicial stamps rose from Rs. 69,42,693 in 1915-16 to Rs. 78,61,320, showing an increase of Rs. 9,18,627, which was shared by all divisions except Burdwan. The increase in the

132994

Presidency Division was Rs. 7,12,822, of which Rs. 6,80,841 occurred in Calcutta. The receipts for the Dacca Division rose by Rs. 1,25,450, and for the Chittagong Division by Rs. 83,106.

Sale of stamps.

500. The number of vendors who held licenses to sell stamps during the year 1916-17 was 5,250 against 5,092 in 1915-16, and the amount of discount allowed to such vendors rose from Rs. 3,55,734 in 1915-16 to Rs. 3,89,246 in 1916-17.

Deficient duty.

501. The total number of cases in which deficient duty and penalty were levied by the Courts under section 35 of Act II of 1899 during the year rose from 2,209 in 1915-16 to 2,329, and the amount of duty and penalty realized from Rs. 13,754 in the previous year to Rs. 16,653. The total number of cases decided by Revenue Courts under sections 32, 37, 40 and 41 of the Act also increased from 2,926 to 3,340 and the amount of duty and penalty realized from Rs. 72,047 to Rs. 76,525, the bulk of the increase being contributed by Calcutta (Rs. 7,432).

Prosecutions under the Stamp Act.

502. The number of cases instituted for infringement of the provisions of the Stamp Act was 257 in 1916-17 against 332 in the preceding year, while 266 persons were brought to trial and 252 persons convicted against 342 and 291, respectively, in the previous year. The fines imposed fell from Rs. 2,758 in 1915-16 to Rs. 2,419. The amount of rewards paid to informers was Rs. 1,240 as compared with Rs. 1,080 in the previous year.

Working of section 19H of the Court-fees Act.

503. Of the cases of valuation of estates for the issue of probates and letters of administration reported during 1916-17, including those pending at the beginning of the year, 72·8 per cent. were completely enquired into against 67·7 per cent. in the previous year. The percentage borne by the deficit duty required to the amount originally realized was 12·3 against 18·3 per cent. in the previous year.

INCOME-TAX.

[Income-tax Administration Report for the three years ending 1916-17. Statistics of British India, Part IV (*b*)—Finance and Revenue.]

Financial results.

504. The receipts, charges and net revenue under the head "Income-tax" during the year 1916-17 were Rs. 1,70,00,125, Rs. 1,89,855 and Rs. 1,68,10,270. The net revenue showed a great increase over that of the previous year, which was mainly due to the enhanced rates of taxation that came into force with the enactment of Act V of 1916. The application of the new rates coincided with a period of great prosperity in the jute and coal trades and also in other activities.

Collection.

505. The total collections made by District Officers on account of the tax under all parts during the year 1916-17 showed an increase of Rs. 94,91,719 over those of 1915-16. To this increase Part I (salaries, pensions, annuities and gratuities) contributed Rs. 3,22,707, Part II (companies) Rs. 61,90,703, Part III (securities) Rs. 2,09,019 and Part IV (other sources) Rs. 27,69,290.

The percentage of tax collected under each part on the total amount of the tax collected during the year 1916-17 was as follows :—

Part I—Salaries, pensions, etc.	8·8
Part II—Profits of companies	50·7
Part III—Interest on securities	2·4
Part IV—Other sources	38·1

Assessments.

506. The total number of persons finally assessed in 1916-17 was 58,338 showing an increase of 6·6 per cent. over the figures for 1915-16.

Incidence of tax.

507. Excluding Calcutta only one person in every 1,270 of the population paid income-tax and the average amount paid by each assessee was Rs. 69. In Calcutta the proportion was one person in 52 and the average tax paid was Rs. 609.

Forest Revenue.

[*See* Chapter IV of this Report—Forests.]

C—Revenue and Finance other than Imperial.

PROVINCIAL FINANCE.

Receipts and expenditure.

508. The following statement shows the actual receipts and charges on account of Provincial services for 1916-17, as compared with those of 1915-16.

(The figures are in thousands of rupees.)

RECEIPTS.	ACTUALS. 1915-16.	ACTUALS. 1916-17.	EXPENDITURE.	ACTUALS. 1915-16.	ACTUALS. 1916-17.
	Rs.	Rs.		Rs.	Rs.
Principal Heads of Revenue—			Direct demand on the revenues—		
I.—Land Revenue	1,65,62	1,64,39	1. Refunds and Drawbacks ...	1,81	2,68
IV.—Stamp	1,12,19	1,20,76	2. Assignments and Compensations ...	30	55
V.—Excise	1,51,40	1,44,44	3. Land Revenue	34,77	36,89
VI.—Provincial Rates	2,34	135	6. Stamps	2,91	3,13
VIII.—Income-tax	36,13	34,28	7. Excise	7,75	9,43
IX.—Forests	17,46	18,39	10. Income-tax	76	81
X.—Registration	20,36	21,49	11. Forests	5,94	6,20
			12. Registration	11,27	13,35
Total	4,99,50	5,50,70	Total ...	65,51	71,04
XII.—Interest	463	649	13. Interest on ordinary debt	4,77	5,02
			Salaries and Expenses of Civil Department—		
Receipts by Civil Department—			18. General Administration	23,89	24,83
XVI.—Law and Justice—			19. Law and Justice { Courts of Law ...	1,03,11	99,19
Courts of Law	844	921	19. Law and Justice { Jails	25,07	27,92
Jails	909	12,13	20. Police	1,09,84	1,16,39
XVII.—Police	191	184	21. Ports and Pilotage	13,78	11,00
XVIII.—Ports and Pilotage	13,59	12,61	22. Education	84,83	76,81
XIX.—Education	887	947	24. Medical	22,84	22,29
XX.—Medical	359	452	24B. Sanitation	4,15	3,87
XXB.—Sanitation	1	2	25. Political	23	89
XXIA.—Agriculture	101	116	28A. Agriculture	11,39	10,86
XXI.—Scientific and Miscellaneous Departments.	605	12,60	26. Scientific and Miscellaneous Departments.	4,48	4,64
Total	52,47	63,57	Total ...	4,02,76	3,98,69
			Miscellaneous—		
Miscellaneous—			29. Superannuation, etc.	31,42	33,01
XXII.—Receipts in aid of Superannuation.	55	59	30. Stationery and Printing	13,02	12,91
XXIII.—Stationery and Printing ...	133	150	32. Miscellaneous	6,39	3,53
XXV.—Miscellaneous	665	688	Total ...	50,83	49,45
Total	853	897	Famine Relief and Insurance—		
			33. Famine Relief	...	1,15
			36. Reduction or avoidance of debt ...	60	60
Irrigation—			Railways (Revenue Account)—		
XXIX.—Major works (direct receipts)	139	145	40. Subsidized Companies—Land, etc.		
			Total ...	60	1,75
XXX.—Minor works and navigation—			Irrigation—		
By Public Works Department	314	392	42. Major Works—		
,, Civil Department	28	25	Working expenses	98	93
Total	479	563	Interest on debt	1,74	1,65
			43. Minor Works and Navigation—		
Buildings and Roads—			By Public Works Department	11,47	10,01
XXXII.—Civil Works—			,, Civil Department	1	1
By Public Works Department ...	472	567	Total ...	14,20	12,60
,, Civil Department	146	291	Buildings and Roads—		
Total	618	858	45. Civil Works—		
			By Public Works Department	67,82	56,52
Transfer between Imperial and Provincial Revenues.	5,350	2,348	,, Civil Department	21,52	7,89
			Total ...	89,34	64,41
Total Receipts	6,34,60	6,67,41	Total Charges ...	6,28,01	6,02,96

509. The variations under the heads *Stamps*, *Income-tax* and *Irrigation*—*Major and Minor Works*—which are divided heads have been explained in the section on Imperial Finance. **Receipts.**

There was a decrease under the following heads noted due to the reasons :—

Land Revenue—Specially large receipts in 1915-16 owing to collection of arrears in Government Estates and the sale of khas mahal lands to the Improvement Trust. *Excise*—Diminished consumption owing to high prices and war conditions and reduction in the amount of opium issued owing to the enhancement of the cost price from Rs. 8-8 to Rs. 12 per seer. *Provincial Rates*—Smaller collections of arrears of Public Works Cess surrendered to the District Boards since the year 1913-14. *Police*—Smaller receipts in Calcutta for guards supplied to private individuals and tradesmen. *Ports and Pilotage*—Falling off in pilotage receipts owing to fewer vessels visiting Calcutta.

Under the following heads there was an increase :—

Forests—Larger receipts for timber in Kurseong, Sunderbans and Buxa Duars. *Registration*—Increase in number of registrations owing to the distress following on war-conditions, and to floods and failure of crops in certain districts. *Interest*—Larger recoveries from cultivators and recovery of interest for the first time on account of the Magrahat Drainage Scheme. *Courts of Law*—Larger receipts from Process servers' fees and fines in Magisterial Courts. *Jails*—Unusually large supplies of gunny goods, bandages and blankets to the Military and Police Departments. *Education*—Increased college and school fees. *Medical*—Contributions from the Indian Research Fund for Dr. Bentley's anti-malarial schemes and for testing vital statistics. *Agriculture*—Larger receipts from agricultural farms and veterinary fees and fines. *Scientific and Miscellaneous Departments*—Large sale of quinine to the Military Department. *Stationery and Printing*—Larger sale of Indian Law Reports and *Calcutta Gazette*. *Miscellaneous*—Recoveries on account of famine expenditure. *Civil Works in charge of Public Works Department*—Recovery of the Government share of the surplus profits of the Darjeeling-Himalayan Railway and special receipts from the sale of Bally brickfield. *Civil Departments*—Refund of the unspent balance of the grant made to the Narayanganj Municipality for water works.

Expenditure.

510. The variations under the divided heads, *Assignments and Compensations*, *Stamps*, *Irrigation—Major and Minor Works*—are explained in the section on Imperial Finance.

The reasons for increased expenditure under the various heads are as follows :—

Refunds and Drawbacks—Larger refunds of income-tax under the new Act. *Land Revenue*—Non-adjustment of the survey and settlement charges of private estates. *Excise*—The re-organization of the department to which effect is being gradually given. *Forests*—Larger expenditure under travelling allowances and departmental khedda operations in the Buxa Division. *Registration*—Increase in temporary establishment. *Interest on ordinary debt*—Larger advances on account of agricultural and other loans. *General Administration*—Larger expenditure on special duty of officers in the Secretariat. *Jails*—Larger expenditure under dietary charges, revision of the warder establishment, and larger purchases of raw materials for manufacturing supplies for the Military and Police Departments. *Police*—Reforms in the Bengal Police. *Political*—Payment of allowances to *détenus* under the Defence of India Act. *Scientific and Miscellaneous Departments*—Larger outlay on chemical and other miscellaneous stores in the Chinchona plantation and factory. *Superannuation*—Annual growth of expenditure under pensions and larger payments on account of commutation of pensions.

The decrease in expenditure under other heads is explained below :—

Courts of Law—Decrease of fees to pleaders in criminal courts and reduction of expenditure of the Appellate Side of the Calcutta High Court owing to the creation of the Patna High Court. *Ports and Pilotage*—Dislocation of sea-borne trade which reduced the earnings of pilots; smaller expenditure under salaries, etc., owing to the transfer of the steamer "Guide" to the Port Commissioners, Calcutta. *Medical*—Deputation of officers to military duty and adjustment in the India Books of the charges for serological tests in the Medical College with effect from 1916-17. *Sanitation*—Smaller

expenditure on gratuitous relief in malarial areas. *Agriculture*—Arrear recoveries of pay of veterinary assistants lent to District Boards which were taken in reduction of expenditure. *Stationery and Printing*—Smaller contingent and other expenditure on the Bengal Secretariat Press and Forms Department. *Miscellaneous*—Smaller expenditure on gratuitous relief. *Civil Works in charge of the Public Works Department*—Smaller expenditure on new works in view of the necessity for economy. *Civil Department*—Cessation of the non-recurring grant of 10 lakhs made to the Calcutta Improvement Trust for five years and smaller grants to District Boards for the augmentation of their resources.

The expenditure under *Famine Relief* represents the charges incurred for the relief of distress in Bankura.

Local Funds.

[Report on Local Funds in Bengal for the year 1916-17.]

511. The following statement shows the income and expenditure and the opening and closing balances of the different Local Funds in the Province for the year 1916-17:— Balances.

Names of Funds.	Opening balance.	Receipts.	Total.	Payment.	Closing balance.
	Rs.	Rs	Rs.	Rs	Rs.
District Funds	33,51,521	1,00,40,640	1,33,92,161	1,04,37,110	29,55,051
District Road Fund, Darjeeling ...	46,859	80,788	1,27,647	66,596	61,051
Union Funds—					
Birbhum	1,832	7,007	8,839	7,132	1,707
Burdwan	683	1,077	1,760	1,366	394
Midnapore	.....	2,367	2,367	1,320	1,047
Jessore	5,167	13,780	18,947	14,578	4,369
Khulna	746	5,191	5,937	4,941	996
Murshidabad	1,075	3,410	4,485	4,110	375
Nadia	1,376	1,142	2,518	512	1,906
Dacca	.....	3,038	3,038	2,105	933
Faridpur	.....	1,854	1,854	1,718	136
Total ...	10,879	38,866	49,745	37,882	11,863
Cantonment Funds—					
Alipore	1,133	1,996	3,129	2,409	720
Barrackpore	9,434	56,113	65,947	58,592	7,355
Dum-Dum	1,358	22,597	23,955	22,760	1,195
Jalapahar	2,279	9,568	11,847	11,710	137
Lebong	4,201	9,348	13,549	10 610	2,939
Takdah	1,952	6,772	8,724	6,475	2,249
Total ...	20,757	1,06,394	1,27,151	1,12,556	14,595
Town and Bazar Funds—					
Chittagong Hill Tract Bazar Fund.	1,655	5,124	6,779	6,667	112
Jalpaiguri Western Duars Market.	21,406	42,751	64,157	27,596	36,561
Total ...	23,061	47,875	70,936	34,263	36,673
Police Funds—					
District Chaukidari Reward Fund.	95,810	70,027	1,65,837	78,519	87,318
Fire Brigade	82,939	2,36,660	3.19,599	2,28,460	91,139
Foundling Asylum ...	27	3,419	3,446	3,418	28
Total ...	1,78,776	3,10,106	4,88,882	3,10,397	1,78,485
Marine Funds—					
Hospital Port Dues (Calcutta)	21,748	71,799	93,547	84,739	8,808
Hospital Port Dues (Chittagong).	5,390	5,358	10,748	5,252	5,496
Total ...	27,138	77,157	1,04,295	89,991	14,304

Names of Funds.	Opening balance.	Receipts.	Total.	Payments.	Closing balance.
	Rs.	Rs.	Rs.	Rs.	Rs.
Education Funds—					
The Presidency College Graduate Scholarship.	2,894	4,751	7,645	4,790	2,855
Durga Charan Laha's ...	.....	2,773	2,773	2,773	.....
Total ...	2,894	7,524	10,418	7,563	2,855
Medical and Charitable Funds—					
Pilgrim Lodging House ...	8,806	6,505	15,311	8,404	6,907
Bengal Famine Orphan ...	7,837	1,222	9,059	.....	9,059
Ram Lal Mukherji's Endowment.	5,426	1,750	7,176	2,000	5,176
Joy Govinda Laha's ...	27,348	4,228	31,576	2,200	29,376
Imambara Hospital ...	10,648	18,931	29,579	24,696	4,883
Chittagong General Hospital	4,138	24,468	28,606	27,709	897
Asansol Mines Board of Health.	.....	41,343	41,343	12,284	29,059
Total ...	64,203	98,447	1,62,650	77,293	85,357
Public Works Funds—					
Darjeeling Improvement ...	80,714	1,15,449	1,96,163	1,10,917	85,246
Miscellaneous Funds—					
Steam Boiler Inspection ...	45,842	95,486	1,41,328	78,629	62,699
Zoological Garden ...	29,793	85,452	1,15,245	94,033	21,212
Mohsin Endowment ...	9,277	1,01,012	1,10,289	95,514	14,775
Christian Burial Board ...	8,743	32,151	40,894	31,515	9,379
Muhammadan Burial Board	769	2,252	3,021	2,151	870
Total ...	94,424	3,16,353	4,10,777	3,01,842	1,08,935
Grand Total ..	39,01,226	1,12,39,599	1,51,40,825	1,15,86,410	35,54,415

During the year one medical fund—the Mines Board of Health at Asansol—was created, while the Cantonment Hospital Funds at Barrackpore and Dum-Dum ceased to exist and their accounts were merged with the Cantonment Funds of those stations.

Grants.

512. The Cantonment Funds received the following grants from the Military Department:—Jalapahar Rs. 4,120, Lebong Rs. 6,357 and Takdah Rs. 4,138. The Durga Charan Laha's Fund received as usual a grant of Rs. 999 from Government to meet the excess expenditure under scholarships and free studentships. The withdrawal of railway concessions and increase in fares which occurred towards the end of the year, acted as a deterrent to normal pilgrimage, leading to a decline in the receipts of the Pilgrim Lodging-house Funds.

Under section 3 of the Bengal Mining Settlements Act, II of 1912, the Asansol Mines Board of Health was constituted and a separate Local Fund was created. The expenditure from the Ram Lal Mukerjee Fund and the Joy Govinda Laha's Fund represents amounts spent for the relief of distress caused by floods in Tippera and Birbhum. The Zoological Garden Fund received the usual grant of Rs. 20,000. The Muhammadan Burial Board Fund obtained a grant of Rs. 2,252 from the Provincial Revenues.

Road and Public Works Cesses.

[Report on the Land Revenue Administration of Bengal for the year 1916-17.]

Rate.

513. The Road and Public Works Cesses were levied, as in the preceding years, at the maximum rates of half-an-anna in the rupee for each cess on the valuation of lands and annual net profits of mines and other immoveable properties in all districts excepting the Chittagong Hill Tracts, where the Act is not in force.

Demand and Collection.

514. The current demand of land revenue for the cess-paying districts is over 2½ crores and the annual valuation of gross rental on which the cesses are based aggregates Rs. 12,49,60,608. Thus the rental is almost five times the revenue. The total cess demand was Rs. 77,34,152 including arrears (Rs. 9,31,476) and the total collections Rs. 68,59,384. As compared with the preceding year, there was an increase of Rs. 1,43,851 in the current demand. The increase occurred chiefly in Burdwan (Rs. 59,502), Khulna (Rs. 21,401) and Dacca (Rs. 33,963) and was due to revaluation proceedings and the annual revision of assessment of mines. The percentage of collections in the Presidency was practically the same as in the previous year, being 100·8 against 100·6. The percentage of the outstanding balance on the total demand decreased by 2·1. The remissions increased from Rs. 21,012 to Rs. 29,971, of which Rs. 28,064 was granted in the district of Burdwan alone owing chiefly to the revision of assessment of mines. No arrears were barred by limitation during the year.

Working of the certificate procedure.

515. The total number of certificates filed during the year for the realization of cesses was 48,850 as against 50,814 in 1915-16. Although taking the Presidency as a whole there was a slight decrease, the increase in the number of institutions is noticeable in Nadia (1,224), Khulna (1,237), and Dacca (1,405). Realization of petty arrears about to be time-barred, increase in the demand caused by revaluation, and realization of arrears on account of rent-free lands amalgamated with the parent estates, are reported to be the causes for this activity. Including 14,780 certificates (revised figures) pending from last year, the total number of certificates for disposal came to 63,630, of which 49,009 or 77 per cent. were disposed of, leaving 14,621 pending. The number of old cases was 1,346. In 14,795 cases, as against 11,478 in the previous year, arrears were recovered on the mere issue of the notice of demand, and in 26,544 as against 26,636, on the issue of notices for the attachment of property, moveable and immoveable. Sales actually took place in 502 cases out of a total number of 63,630 certificate cases for disposal.

Valuations and revaluations.

516 Important revaluation operations were in progress in Midnapore and Bakarganj. Revaluations conducted by the Settlement Department were also in progress in Dacca, Noakhali (except pargana Nij Sundip) and Rajshahi. The annual assessment of coal mines in the Asansol Subdivision of the Burdwan district yielded an increase of more than 10 lakhs in the valuation.

Municipal Revenue.

[*See* Chapter III of this Report—Municipal Administration.]

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICE.

Vital Statistics.

[The Report of the Sanitary Commissioner for the year 1916. Statistics of British India, Part V—Area population and public health.]

General Results.

517. In 1916 there was an excess of births over deaths amounting to 204,571. This is the largest annual increase registered since 1912 and more than compensates for the decrease recorded in 1915. The recovery was the combined result of a slightly enhanced birth-rate and of a considerable decrease in mortality from almost every cause, and more especially from cholera, small-pox and fever. The rainfall was generally well distributed and ample in amount; the outturn of the rice crop, on which the agricultural prosperity of the Presidency mainly depends, was good. As a result of these favourable conditions, there was an increase of the natural population throughout the Presidency. Though small in West and North Bengal, it was large in Eastern Bengal, the growth of population being 9 per mille in the Dacca Division and 14½ per mille in the Chittagong Division.

Birth-rate.

518. The birth-rate rose from 31·80 to 31·89 per mille. The actual increase in the number of births is extremely small, but it is satisfactory that the decrease of 2 per mille returned in 1915 has given place to an increase and that the check to the natural growth of the population has been stayed.

Death-rate.

519. Compared with 1915, the number of deaths decreased by nearly a quarter of a million, the death-rate falling from 32·83 per mille to 27·37 per mille. The mortality from every cause was lower, and the decrease was shared in by all areas, whether urban, rural, or combined urban and rural, while the mortality both from fever and cholera, was the lowest on record since the creation of the Presidency in 1912.

There was a further satisfactory decline in infant mortality, the ratio which deaths in the first year of life bear to births falling from 21·89 per cent. to 19·53 per cent. In only one district, as against six in 1915, was the proportion of infant mortality higher than 25 per cent., and the district ratio in this case was considerably less than the maximum of the previous year.

Verification of Vital Statistics.

520. The margin of error in vital statistics due to defective registration still persists. Comparison on a large scale of the returns obtained by Inspectors and Sub-Inspectors of Vaccination with entries in the thana registers reveal a deficiency averaging 2·58 per cent. in the case of births and 1·93 per cent. in the case of deaths, while in two districts one out of every 10 births escaped registration. There has been some improvement in towns, but from the abnormally low birth-rates reported in some towns, it is clear that the return for towns are still very incomplete and that a large number of births are unreported. A remarkable instance of the improvement which can be effected by employing the powers permitted by law is afforded by the town of Asansol, where the reported birth-rate rose from 6·02 per mille in 1915 to 21·89 per mille in 1916 owing to a number of prosecutions being instituted for neglect to register vital occurrences.

Instructions were issued to Commissioners and District Officers that during their inspections they should examine the adequacy of the arrangements made for registration and that they should impress upon municipal authorities the necessity for discharging their duties in this matter.

Fever.

521. The total number of deaths reported from fever was 909,880 compared with 1,064,159 in the previous year, and was considerably below the annual average of 986,443 returned for the five years 1911—1915. This head of the statistics includes deaths from various febrile diseases or ailments accompanied by a rise of temperature; and it is impossible to discriminate deaths due to fevers of malarial origin.

The decline in mortality is attributed by the Sanitary Commissioner to heavy seasonal rainfall and to the effects of inundations in many places, a

view in which he is supported by a consensus of opinion among Civil Surgeons. In Birbhum, which in 1915 returned the highest mortality from fever, and in which malarial fever was said to have raged with unabated fury since 1912, the disease is reported to have been conspicuous by its absence as the result of unusually heavy rain and extensive inundation.

The decrease in mortality was more marked in rural than in urban areas, but in the towns the fever death-rate (6·93 per mille) remains less than a third of what it is in rural areas (20·97 per mille).

522. The ordinary anti-malarial measures conducted by Government and local bodies were continued throughout the year, the only change being that the expenditure usually incurred by Government in deputing itinerant Sub-Assistant Surgeons was devoted to the free distributions of quinine through the District Boards in districts in which malaria was rife. The distribution of quinine to school children in certain areas in the Burdwan Division resulted in a considerable increase in the percentage of attendance. Malaria.

Towards the close of the year a beginning was made with three out of four schemes designed by Dr. Bentley as experiments in anti-malarial operations. These schemes are to be carried out in areas with varying physical conditions, so that it may be possible to predicate what measures are likely to be successful for the prevention and mitigation of malaria in different parts of the Presidency. Two of the experiments are to be made in the deltaic tracts, viz., one in a rural area in the Burdwan district and the other in the town of Jangipur in the Murshidabad district. The Sanitary Commissioner describes these schemes as follows :—

"In the Burdwan and Jangipur schemes the idea is to take in the silt-laden waters of the Damodar and Bhagirathi rivers, respectively, during the floods so as to reduce what is called areas of mosquito-breeding edges by converting a large number of small pools into a big sheet of water, and at the same time to enrich the soil by allowing the silt to deposit on agricultural land. By constructing a series of regulators and sluices, it is arranged to control the flood water, so as to allow only a sufficient quantity that may benefit the crops and not drown them ; and at the same time only the silt and not the sand may be deposited on agricultural land—a special method technically known as 'Bonificazione'. By this method it is also contrived to flush out old insanitary tanks and ditches, and in course of time to silt them up".

The basis of the third experiment is a system of subsoil drainage, which has been successful in Panama and the Federated Malay States, but has not been attempted in Bengal in connection with anti-malarial operations. This experiment is to be made at the Meenglass tea estate in the submontane region in the district of Jalpaiguri. A fourth will be carried out on a colliery situated at Singaram in the Burdwan district, in the rolling upland country which covers a large area in West Bengal. In these latter tracts the chief carriers of malaria are believed to be stream-breeding mosquitoes which differ in their habits from the common carriers of malaria met with in deltaic areas. The two schemes have been specially drawn up with the object of ascertaining the best method of dealing with these mosquitoes and determining the minimum area round a village that must be controlled in order to bring about a reduction of malaria.

At Meenglass the hill streams, in which a dangerous species of anopheline mosquito breeds, will be put underground, the water being carried off in subsoil drains when the flow becomes sluggish, while the storm flow is allowed to pass over them in the usual stream channels. The Singaram scheme consists of two parts, viz., (1) a thorough surface drainage of the area to be experimented on, and (2) the periodical flushing of a small river in which malaria-carrying mosquitoes of a vicious character breed. The object of the first part is to drain away pools and depressions in which malaria-carrying mosquitoes breed ; that of the second is to substitute a series of flushes in the river instead of a sluggish flow, for it has been ascertained that mosquitoes breed along its edge when the flow is gentle, but when the river is in flood their eggs and larvæ are carried away. It, is therefore, proposed to construct a weir with sluices so arranged that, when the sluices are closed, a head of water will be accumulated behind the weir, and this will be periodically discharged so as to flush the bed of the rivulet. It is hoped that three of the schemes will be completed during the current year.

Stegomyia Enquiry.

523. A conference was convened by Government in November 1916 to consider the measures necessary to establish homogeneous sanitary control throughout the port of Calcutta, with special reference to the question of taking measures to prevent the introduction of yellow fever through the medium of the stegomyia mosquito in consequence of the opening of the Panama Canal.

Cholera.

524. Owing to the absence of virulent epidemics, which is attributed to copious and seasonable rainfall, the number of deaths from cholera fell from 130,679, which is the highest figure as yet recorded in the Presidency, to 70,836, which is the minimum on record. Steps were taken by District Boards to cope with cholera outbreaks by the disinfection of wells and the appointment of itinerant doctors.

Plague.

525. The mortality from plague continued to diminish, the total number of deaths being 110, of which 78 occurred in Calcutta and 22 at Sainthia in the district of Birbhum. A sharp outbreak at the latter place, which is believed to have been due to the importation of the disease by Marwari traders, was successfully localized. The total number of deaths during the year was the lowest on record; and the Presidency was entirely free from plague during the last five months of the year.

Emigration.

COLONIAL EMIGRATION.

[The Annual Report on Emigration from the Port of Calcutta to British and Foreign Colonies during the year 1916. Statistics of British India, Part V—Area, population and public health.]

Administrative measures.

526. The Central Emigration Depôt at Benares was temporarily closed during the year under review. The decision of Government to abolish the indentured system of emigration to the Colonies was also announced, and the question of devising a new scheme in substitution for that system came under consideration

Emigration Agencies and despatch of emigrants.

527. Five emigration agencies were at work in 1916 as against 3 in the year 1915: 4 on behalf of the British Colonies, and 1 for the Dutch Colony of Surinam which resumed recruiting during the year. Chiefly owing to the shortage of steamers it was again impossible to meet the demands of the Colonies: though these increased from 5,846 adults in 1915 to 9,071 in 1916, only 3,661, or 1,347 more than in the previous year, were supplied.

Recruitment of emigrants.

528. The number of licenses issued to recruiters was 498 in 1916, a decrease of 58 on the preceding year. Twenty-seven licenses, including 8 granted in 1915, were cancelled, misconduct being the cause in 22 against 12 cases in the preceding year. Recruiting operations were conducted in Bengal, Bihar and Orissa, the United Provinces of Agra and Oudh, Ajmer and the Punjab, but not in the Central Provinces. In all 4,932 emigrants or 1,043 less than in 1915 were registered, 85·66 per cent. of the total number coming from the United Provinces. Of the 5,232 emigrants admitted into sub-depôts, 430 were rejected as unfit to emigrate, 63 deserted, and 108 were released from their engagements, and of the remainder 4,484 arrived at the Calcutta depôts, but this number was subsequently reduced by rejections, releases, and other causes to 4,013. Of these, 3,834 (2,545 males and 1,289 females) were shipped as against 2,438 (1,598 males and 840 females) in 1915, among whom 127 or 3·42 per cent. were returned emigrants who re-emigrated.

Sanitary arrangements in depots.

529. The Sanitary arrangements in the depôts were good, and there was a satisfactory decrease in the percentages both of sickness and mortality, the figures being 6·8 and ·13 as against 10·61 and ·15 respectively in 1915.

Savings of emigrants.

530. Two thousand one hundred and seventy-five emigrants left the Colonies during 1916, bringing with them savings aggregating Rs. 4,90,350, or an average of Rs. 225-7-2 per head, as compared with Rs. 183-10-11 in the previous year. On the other hand 1,661 emigrants including 1,230 adults, or 76·36 per cent. of the total, returned with no savings. There was an increase in the total amounts of remittances from emigrants resident in Demerara, Trinidad and Surinam, but the remittances from Mauritius, Natal and Jamaica fell off. As in previous years Natal sent the largest sum by money-order, the total being Rs. 6,79,913, but this amount probably includes

remittances from more well-to-do Indians residing there as well as from labourers. The average savings of resident Indians in the several Colonies are reported to have decreased in 1916, war conditions being in some cases held accountable for the decline.

Disposal of estates of deceased emigrants.

531. One hundred and ninety-seven estates of deceased emigrants valued at Rs. 23,900 were administered by Government during the year. Of these, the heirs of 113 were traced, 47 lapsed to the Colonial and Indian Governments, and the remainder were under enquiry at the end of the year.

Financial.

532. The emigration accounts closed with a deficit of Rs. 15,530-14, due to the decrease of embarkation fees in consequence of the falling off in the number of emigrants despatched.

INLAND EMIGRATION.

[The Reports on Inland Emigration under the Assam Labour and Emigration Act, 1901 (VI of 1901), for the year ending the 30th June 1917, submitted by the Superintendent of Emigration, Calcutta, and the District and Assistant Superintendents of Emigration.]

Administrative measures.

533. The year 1916-17 was an uneventful one in the matter of emigration, and its principal feature was the great falling off in the number of emigrants despatched to Assam. Among the administrative measures of the year the most important was the prohibition of recruitment, otherwise than in accordance with Chapter IV of Act VI of 1901, in the districts of the Dacca, Rajshahi and Chittagong Divisions. By this measure one of the loopholes for evading the provisions of the Act was closed, as from the areas mentioned, where uncontrolled recruitment under section 92 of the Act was legally permissible, attempts had been made to pass on to Assam coolies who had been recruited in Chota Nagpur and elsewhere, on the pretext that they would be employed in the tea gardens of the Duars and Chittagong.

The lists of medicines, medical stores and comforts prescribed for the use of emigrants during the river journey were revised.

Recruitment and recruiting Agencies.

534. One thousand six hundred and ten garden sardars (including 357 sardarnis) were employed during the year in this Presidency as against 2,948 (including 603 sardarnis) in the year 1915-16. All garden sardars worked under the control of local agents. This seems to indicate that employers in Assam have now realized that their interests are best served by placing their sardars under the supervision of duly licensed local agents, who are responsible for seeing that recruitment is carried on lawfully and on proper lines. Six local agents' licenses were granted as against 7 in the preceding year. Recruiting operations were conducted in the districts of Bankura, Birbhum, Burdwan, Midnapore and Murshidabad, where 2,197 emigrants were recruited as against 10,876 in the previous year. There was no recruitment in the district of the 24-Parganas. The largest number of emigrants went from the districts of Midnapore, Bankura and Burdwan, viz., 1,159, 773 and 203, respectively. The number of criminal cases connected with recruitment amounted to 4 only as compared with 9 in the preceding year, and the number of persons convicted was 4 as against 10 in the year 1915-16.

Number of emigrants embarked at Goalundo.

535. The total number of emigrants recruited in Madras, the United Provinces, the Central Provinces, Bengal, and Bihar and Orissa, who embarked at Goalundo during the year under report, was 29,990 as compared with 94,057 in the previous year. The decrease may be attributed partly to the despatch of an unusually large number of emigrants in 1915-16, and partly to the effects of the war on business generally.

Places of accommodation and rest-houses.

536. The places of accommodation and rest-houses for emigrants were duly inspected and kept in proper sanitary condition, while the arrangements for the transport of emigrants were satisfactory. Seventeen deaths were reported among emigrants during transit to Goalundo, and among the 30,022 emigrants who arrived at that station there were 9 deaths. There was no death during the steamer journey to Chandpur among the 8,971 emigrants who embarked for the Surma Valley districts, but of the 21,019 emigrants who embarked for the Brahmaputra Valley, 14 died during the voyage.

Repatriation.

537. Eight emigrants, who refused to embark, were released under the orders of the Subdivisional Officer, Goalundo, 5 were rejected as physically unfit to labour in tea estates, and 55 were repatriated through Goalundo.

Medical Relief.

CALCUTTA MEDICAL INSTITUTIONS.

[The Triennial Report on the working of the Hospitals and Dispensaries under the Government of Bengal for the years 1914, 1915 and 1916. Statistics of British India, Part V—Area, population and public health.]

General.

538. The outbreak of war brought a call for medical assistance from Bengal, and before the end of 1916, 35 Indian Medical Service Officers, 29 Military Assistant Surgeons, 3 Civil Assistant Surgeons and 69 Sub-Assistant Surgeons had proceeded on military duty. This was a heavy demand, particularly on the superior service, yet, in spite of it and of the difficulties in the recruitment of temporary officers to fill vacancies, the work of the department was carried on successfully and some important administrative reforms were effected.

Tropical School of Medicine.

539. The dearth of medical officers and conditions—financial and otherwise—arising out of the war prevented the opening of the Tropical School of Medicine. The building has been completed, but the necessary equipment cannot be obtained; the staff has been sanctioned but cannot be brought together till the war ends. Meanwhile funds have been raised for the construction and endowment of a Hospital for Tropical Diseases to be connected with the school. The hospital is approaching completion, but the equipment is not at present procurable. Through the liberality of three commercial associations, which have each promised an annual contribution of Rs. 20,000 for a period of five years, it will be possible to arrange for research work at the Tropical School in the diseases which are most prevalent in the labour force employed on tea gardens, on the coal-fields, and in jute mills.

Finance.

540. Including the expenditure on the School and Hospital of Tropical Medicine, which amounted to Rs. 10,15,000, the expenditure on new buildings and repairs during the three years under report amounted to Rs. 18,28,392. Several of the larger building schemes have been abandoned on account of the war, while others have been held in abeyance. The most important works carried on during this period were the construction of a diphtheria ward as an annexè to the Medical College Hospital at a cost of Rs. 22,2:9, the provision of a new ward for plague cases in the Campbell Hospital, the expenditure on which amounted to Rs. 21,827, the acquisition of land for a new Eye Hospital at a cost of Rs. 2,28,000 and the provision of nurses' quarters at the Howrah General Hospital at a cost of Rs. 30,000. During the three years the maintenance charges of the Calcutta hospitals steadily continued to rise and amounted to Rs. 36,10,356. The income of class I (State) hospitals was Rs. 12,21,521, of which 72·16 per cent. was contributed by Government. The Government subvention to class III and IV institutions amounted to 25·09 per cent. of their total income. The amount of subscriptions and donations received from Europeans amounted to 11·54 per cent. and from Indians to 6·6 per cent. of the total income.

Number of patients.

541. The average yearly number of in-door patients at the Calcutta hospitals was practically the same as in the previous triennium; 95,740 in all were admitted. The number of beds increased and the percentage of mortality during the three years showed an appreciable decline, the figures being 9·99, 10·84 and 9·97 per cent. against 12·16, 11·32 and 10·95 in the preceding three years.

The number of out-patients during 1916 was 342,460 against 322,652 in 1913 and bears testimony to the fact that the value of Western medicine is being appreciated by the public.

CHARITABLE HOSPITALS AND DISPENSARIES OUTSIDE CALCUTTA.

Number of institutions.

542. At the close of the triennium there were, outside Calcutta, 700 hospitals and dispensaries, of which 19 were State public, 45 State special, 253 District Board, 96 Municipal, 6 Local Fund, 82 private aided, 148 private non-aided and 51 Railway. During this period 76 new hospitals and dispensaries came into existence.

543. The mufassal hospitals had to treat as an annual average 5,725,611 out-door and 61,402 in-door patients against 4,968,689 and 54,279 patients during the previous triennium. **Number of patients.**

544. There was a marked increase in the total expenditure on classes I, III and IV dispensaries, which rose from Rs. 9,92,962 in 1913 to Rs. 12,48,450 in 1916, while the total receipts of the latter year amounted only to Rs. 12,50,070; of this sum the Government subsidy accounted for 12·77 per cent., the Municipality and District and other Local Fund contributions were 16·77 and 41·31, respectively, while subscriptions and donations from the public came to 20·56 per cent. **Finance.**

545. Altogether 2,209 leper patients were treated in the Presidency during the year 1916, against 1,993 and 1,828 for 1915 and 1914, respectively. The total expenditure on asylums amounted to Rs. 60,616 in 1916, of which Government contributed Rs. 38,680, missionary funds meeting the balance. **Leper Asylums.**

Eden Sanitarium, Darjeeling.

[Report on the Eden Sanitarium and Hospital for the year 1916.]

546. The total number of admissions during the year was 542 as against 607 in the previous year. The number of persons admitted to the several classes, viz., first, intermediate, second and third was 54, 145, 212 and 131, respectively, as compared with 66, 101, 273 and 167 during 1915. The number of patients treated in hospital decreased from 271 in 1915 to 172 in 1916. Eighteen patients were treated in the free-beds during the year, the same number as in the previous year. **Admission.**

547. The receipts of the institution from patients fell from Rs. 38,953 in 1915 to Rs. 32,708 in 1916, but there was a surplus of Rs. 891 at the close of the year. **Finance.**

The Darjeeling Municipality and the Darjeeling Improvement Fund continued their subsidies of Rs. 1,000 each.

Lunatic Asylums.

[Annual Returns of the Lunatic Asylums in Bengal for the year 1916. Statistics of British India, Part V.—Area, population and public health.]

548. Admissions and re-admissions into the lunatic asylums in the Presidency numbered 241 and included 85 criminal cases. This was a slight decrease on the revised figures of the previous year. One hundred and seventy-five lunatics were discharged during the year, and the asylum population at the end of the year was 1,048 or 54 less than the number of inmates at the close of 1915. The daily average strength of the year was 1076·94 as against 1091·40 in 1915. The most satisfactory feature of the year was the large number of recoveries, viz.: 129 against 81 in 1915. The Central asylum for European lunatics at Ranchi is nearing completion and it is expected to be ready for occupation during next cold weather. The inmates of the Bhowanipur asylum will then be transferred to this new asylum. The construction of the Central asylum for Indian lunatics at Ranchi has also been commenced. **Admission, Discharge, Population and Accommodation.**

549. The provisions of the Indian Lunacy Act, 1912, were extended to the Insane Ward of the Gobra Leper Asylum during the year. Three leper lunatics were confined in this ward at the beginning of the year and 3 have since been admitted—these were all non-criminal lunatics. **Extension of the Lunacy Act to the Insane Ward of the Gobra Leper Asylum.**

550. There was no outbreak of any epidemic disease in any of the asylums, but the general health of the inmates of the Berhampore and the Dacca Lunatic Asylums was not so good as in the previous year. There were two cases of Kala-Azar in the European asylum at Bhowanipur, one of which ended fatally. On this account the asylum was closed for a short time against new admissions. The mortality among the lunatics in the Presidency during the year 1916 was unusually high, the death rate being 11·14 per cent. of the average population as against 7·81 per cent. in 1915, 8·51 per cent. in 1914, and 8·57 per cent. in 1913. This compares unfavourably with the death-rates in other Provinces, except in Assam and in Bihar and Orissa where the **Health of lunatics.**

death-rates were 14·44 per cent. and 11·28 per cent., respectively. The high mortality in the Dacca Asylum is believed to have been fortuitous.

Expenditure.

551. The total expenditure on the up-keep of the lunatic asylums rose from Rs. 2,14,118 to Rs. 2,27,784, the increase being primarily due to structural improvements carried out at Dacca and Berhampore. The net cost on account of the maintenance of each pauper patient amounted to Rs. 154-15-7 per annum against Rs. 153-7-7 in the previous year.

Sanitation.

[Report of the Sanitary Board, Bengal, and the Sanitary Engineer, Bengal, 1916.]

The Sanitary Board.

552. The Sanitary Board continued to do useful work. Besides advising on a number of sanitary questions of considerable importance, it considered and submitted to Government sketch projects for three drainage works and four schemes of water-supply, of which the total cost is estimated at Rs. 9,76,581.

Sanitary works.

553. The total expenditure incurred on sanitary works executed during the financial year 1915-16 by Government, Municipalities, District Boards and private individuals is estimated at Rs. 14,60,006. Sanitary works were, as usual, carried out in the villages through the agency of District and Local Boards and Union Committees. It is reported that the villagers do not understand the importance of sanitary measures and are reluctant to contribute to their cost.

Sanitary Improvements.

554. The total expenditure on sanitary engineering works during the calendar year 1916 is reported to have been Rs. 4,61,894, or nearly 3 lakhs less than in the previous year. The decrease is due to the unfavourable financial situation consequent on the war. The greater part of the expenditure was, as usual, devoted to water-supply. Water works were completed at Chittagong and Bankura and schemes for the improvement of the urban water-supply were under construction at Howrah, Barisal, Berhampore and Burdwan. Drainage schemes were fully completed at Katwa and partially completed at Burdwan and Bhadreswar, while others were under construction at Howrah, Bhatpara, Garden Reach and Tangail.

Vaccination.

[Annual Statistical Returns and short Notes on Vaccination in Bengal for the year 1916-17. Statistics of British India, Part V—Area, population and public health.]

Small-pox.

555. The rise in the mortality from small-pox, which had been noticeable for some years and which culminated in 32,785 deaths in 1915, was checked, the number of deaths reported in 1916 falling to 13,890. The highest district death-rate was returned by Bankura, viz., 1·32 per mille. The Civil Surgeon attributes the outbreak in that district to the fact that most of the sources of water-supply in the villages had dried up owing to the failure of the rains in the preceding year. Calcutta, which suffered from a virulent outbreak of the disease in 1915, was almost immune, only 58 deaths being returned.

Vaccination.

556. The total number of persons returned as having been vaccinated during the year 1916-17 was 1,598,428 as against 1,635,621 during the previous year. The decrease is said to be due chiefly to the stricter supervision exercised by Inspectors and Sub-Inspectors of Vaccination over the work of the Vaccinators and by Deputy Sanitary Commissioners over the work of both, the effect being to check the temptation to submit false figures. Free vaccination at the cost of the District Boards was introduced as an experimental measure in one thana of the Faridpur district, and was continued with satisfactory results in the 24-Parganas and the Sadar subdivision of Bakarganj. A large number of persons were operated on who had not been vaccinated before and vaccination was introduced in villages which had hitherto objected to it. In the towns 642 per mille of the surviving infant population was reported to be protected; but the correctness of these figures

is not free from doubt. A new method of inspection which was introduced brought to light the fact that in many districts from one-third to one-half of the children under five years of age escaped vaccination.

The Poisons Act.

[Report on the working of the Poisons Act, I of 1904, during the year 1916.]

Working of the Poisons Act.

557. No special steps appear to have been taken to make the provisions of the Act known to the public. The total number of licenses granted during the year throughout the Presidency, including Calcutta, was 172 under section 2 and 301 under section 4 as compared with 160 and 191, respectively, during the preceding year. In Calcutta, the total number of licenses issued under both the sections stood at 107 as against 99 in 1915. In the Mufassal, Bogra alone issued some 93 licenses and the Commissioner of the Rajshahi Division has been requested to explain the circumstances under which this abnormally large number of licenses was issued. In Calcutta, there was no case of prosecution under the Act. In the Mufassal districts, there were 16 prosecutions of which 9 ended in convictions, two were pending at the close of the year and in the rest the accused were acquitted. No serious irregularities were brought to notice during the year.

CHAPTER VII.—INSTRUCTION.

General System of Public Instruction.

See—

General Administration Report for 1911-12, Part II, Pages 264–273.

Education.

[Progress of Education in Bengal, 1912-13 to 1916-17. Fifth Quenquennial Review.]

General results.

558. Owing to the financial stringency caused by the war, educational expenditure fell from Rs. 2,56,78,348 to Rs. 2,43,11,786, but educational institutions again increased by nearly 2,000, viz., from 46,770 to 48,373, while the record number of scholars reached in the previous year was passed. The total number rose to 1,918,432 (1,617,537 males and 300,895 females), the percentage on the male and female population being 6·9 and 1·3, respectively; the increase was 60 per cent. greater than in 1915-16.

Collegiate Education.

559. Altogether 5,946 candidates passed the Matriculation Examination in 1915-1916, but during the year under review the number of college students increased by only 1,252. The aggregate was 18,478 divided between 33 colleges and giving an average of 560 a college. The maximum number was 953 in the Presidency College, and the minimum 78 in the Bethune College. Muhammadan collegiate students increased from 1,535 to 1,639, but even so were outnumbered by the Hindus in the proportion of 1 to 10. The contribution of the State to the cost of collegiate education was over one-third of the total; 56·8 per cent was met from fees and 8·8 per cent. from other sources.

Post-graduate teaching in Calcutta has been reorganized and is now conducted only in the name and under the control of the University. Under the new system students who desire to obtain instruction in the M.A. and M.Sc. courses have to be registered as University students, but may attach themselves to the colleges from which they graduated, or, where this is not possible, to some other college in the city. As the result of the new system the Presidency College and the Scottish Churches College retain no affiliation beyond the B.A. and the B.Sc. stages. A new private college was founded at Rangpur, which was named after Lord Carmichael, who laid the foundation stone.

Secondary Education.

560. There were 399,682 pupils attending 2,649 secondary schools, viz., 698 High Schools, 1,602 Middle English Schools and 349 Middle Vernacular Schools. There was an addition of 82 High Schools and of 121 Middle English Schools, but the decrease of 31 Middle Vernacular Schools recorded last year was followed by a further diminution of 34. Middle Vernacular Schools, which work on a purely vernacular basis, are unpopular. The tendency is for them to be converted into Middle English Schools and their disappearance is partly responsible for the continued growth of Middle English Schools. The total expenditure on English Secondary Schools for boys amounted to Rs. 70,66,818 and on Middle Vernacular Schools to Rs. 1,99,558. Public funds contributed Rs. 9,46,890 out of the total expenditure of Rs. 72,66,376. The amount provided from Provincial revenues (including Imperial assignments in grants-in-aid) amounted to Rs. 4,36,173, while the contributions from district and municipal funds were Rs. 2,21,683 and Rs. 21,909, respectively. The number of candidates for the Matriculation Examination of the Calcutta University rose from 9,968 to 11,421, of whom 8,349 passed or 2,403 more than in the preceding year. The Hastings House School, which prepares Indian students for the Senior and Junior Cambridge Local Examinations, had 43 students at the close of the year.

Primary Education.

561. The number of primary schools for boys rose from 31,612 to 32,588 and the number of pupils from 1,124,109 to 1,159,786. Of the total number 564,479 were Hindus and 574,407 were Muhammadans. It is estimated that under one-fifth of the boys aged 5 to 15 are receiving instruction in primary schools. The total expenditure amounted to Rs. 37,97,976 of which public funds contributed Rs. 16,51,010 or 43·4 per cent.

Training of teachers.

562. There were three colleges for the training of secondary school teachers. The David Hare Training College at Calcutta and the Dacca Training College are maintained by Government and teach up to the Bachelor of Teaching and Licentiate in Teaching standards of the Calcutta University. The former had 27 and the latter 59 students on the rolls. Besides these two Government institutions, the London Missionary Society Training class at Bhowanipur, with 7 students on its rolls, teaches up to the Licentiate in Teaching courses of the Calcutta University. Five Normal schools are maintained by Government for training teachers for vernacular schools. There is also a Normal training school at Krishnagar under the management of the Church Missionary Society, which is aided by Government. There were 456 students in these schools on the 31st March 1917, of whom 133 passed out with final certificates. Government maintained 115 *guru*-training schools for primary school teachers, including 6 which are reserved for the training of teachers in *máktabs*. There were 1,988 primary teachers under training, and 928 completed their course during the year.

Professional Technical and Industrial Education.

563. There were 9 law colleges with an aggregate of 2,912 students, which nearly equals the number (3,218) studying for a commercial, technical or industrial career in commercial, engineering, surveying, technical and industrial schools. The artisan class of the Government Weaving Institute at Serampore is reported to be gaining in popularity.

Education of Indian Girls and Women.

564. No less than 612 new girls' schools were opened during the year, and the number of girls under instruction increased by 16,716. There are two Arts Colleges for Indian women, both in Calcutta, viz., the Bethune College and the Diocesan College, of which the former had 83 students and the latter 50 on its rolls.

There were 14 high schools for girls, 4 of which were maintained by Government. The total number of pupils at these schools was 1,933. There were 50 middle schools, with 5,383 pupils under instruction; at 20 of these schools English was taught. The number of primary schools for girls was 9,362, and 274,775 pupils received instruction. Zenana teaching continued to be conducted by governesses holding central gatherings of pupils or attending several houses in a town. Altogether 11 industrial schools for girls have been started.

Education of Europeans and Anglo-Indians.

655. There were 79 institutions for the education of Europeans and Anglo-Indians; of these 63 were for general and 16 for special instruction. The number of pupils under instruction in these institutions was 8,959 or 703 less than in the preceding year. Of 546 teachers employed in these schools only 211 were trained teachers. The only recognized institutions for the training of European teachers is the class for female teachers attached to the Dow Hill Girls School, which had 18 teachers under training. The two Government High Schools at Kurseong, viz., the Victoria Boys School and the Dow Hill Girls School were full to their utmost capacity. As a result of the passing of the Indian Defence Act the military training of boys under 16 years of age as cadets was discontinued and boys between the age of 16 and 18 were enrolled as cadets in the Indian Defence Force.

Muhammadan education.

566. The number of Muhammadans under instruction increased from 824,250 to 864,195. The first examination at the end of the Junior Madrassa course under the reformed Madrassa scheme was held in the year under review. The Anglo-Persian Departments of the Dacca and Chittagong Madrassas, which are practically High English Schools, were separated from the Arabic Departments and placed under the Inspector of Schools of the division concerned. An important resolution was recorded by Government summing up their general policy in regard to Muhammadan education, in which it was directed that 25 per cent. of the vacancies in Government colleges and an average of

15 per cent. of the vacancies in Government High Schools should be reserved for Muhammadans.

Education of special classes.

567. The total number of pupils from communities classified as "depressed classes" was 86,027, of whom 41,105 were Namasudras. There were 183 Primary Schools for the education of Sonthals with 4,071 pupils. The control of these schools in Bankura and Midnapore was reorganized and placed under a Board in each district, and the pay of trained teachers in the schools was increased to Rs. 13 a month with the help of a Government grant. In the Jalpaiguri district 30 new schools were opened for the education of the children of labourers in tea gardens. Assistance was also given towards the education of the children of mill hands in Tittagarh.

Hostels.

568. The number of hostels or boarding-houses increased from 735 to 781. There were altogether 25,416 boarders or 1·4 per cent. of the college and school enrolment.

The University made satisfactory progress in the construction of hostels for the students of private colleges in Calcutta with large funds placed at their disposal by Government.

Literature and the Press.

[Statistics of British India, Part VII—Educational.]

The Bengal Library and working of Act XXV of 1867.

569. The number of publications registered during the year was 3,961, viz., 2,718 books and 1,243 issues of periodicals. Of the books 2,538 were original publications, the rest being republications or translations. The issues of periodicals represented 180 separate publications, of which 54 were in English and 78 in Bengali; the remainder were in other languages. In the preceding year there were 184 periodicals, of which 91 were in Bengali. Forty-six periodicals ceased to appear during the period under review; 36 new ones were started and 2 defunct journals were revived. There were 94 cases of evasion of the law of book registration under Act XXV of 1867.

Literary publications.

570. The output of literature did not show any marked increase during the year but this check was solely due to the increase in the price of paper and printing materials. The most remarkable poem published during the year was a historical epic poem entitled "Prithviraj", by Jogendra Nath Bose. The biographical and dramatic literature of the year was poor but in the domain of fiction some of the works published are of good quality. A noticeable feature of the year was the predominance of short stories over regular novels. These stories mostly relate to some phase of Hindu society and are of considerable artistic merit. The best novel was Palli Samaj (Village Society), a social novel by Sarat Chandra Chatarji, which gives a graphic and realistic picture of the dark side of present day village society of Bengal. The bulk of the historical literature consisted of school books in various languages. The year was not marked by any publications of special merit under the heads of Religion, Art and Philosophy.

The Press and the working of the Indian Press Act.

571. The total number of newspapers and periodicals, both English and Vernacular, published in Bengal during the year was 336, of which 219 were published in the town of Calcutta. Forty-seven new periodicals and newspapers started publication during the year, 93 old papers ceased to exist and 3 old ones were revived. Of these publications 181 were written in Bengali, 101 in English, 8 in Hindi and the rest in Urdu, Assamese and other languages.

Working of the Naval and Military Ordinance and the Indian Press Act.

572. The attitude of the Indian Press in regard to the war was on the whole satisfactory. A section of the Urdu press gave some trouble during the early part of the year by publishing lengthy and obscure articles with a Pan-Islamic and Pro-Turkish tendency. No prosecution was instituted under the Indian Naval and Military (Emergency) Ordinance of 1914, and such indiscretions as were committed in the publication of prohibited war news were dealt with by warnings from the Press Censor. Thirteen leaflets and two pamphlets were declared forfeited and security was demanded from ten presses and ten newspapers under the Indian Press Act. Only two of the papers furnished security; four ceased publication on the demand being made and no issue of the others appeared.

573. Bengal's part in the war was the subject of considerable discussion. The press resented the disbandment of the Bengal Ambulance Corps and the disability of Bengalis to enlist in the army. The announcement that a Bengali double-company was to be formed was received with enthusiasm and the subsequent call for a full battalion was also welcomed. Of the other topics discussed the most important was the question of post-war reforms and in this connection some of the Indian papers laid down the lines which the reforms should take and formulated an advanced type of Home Rule. The outbreak of revolutionary crime evoked the usual expressions of horror but no proposals for practical remedial measures were suggested. Constant criticism of the administration of the Defence of India Act was indulged in and many of the papers declined to believe Lord Carmichael's assertion of the existence of a widespread and well organized conspiracy against British Rule. The Indian Press showed considerable interest in political movements in England and other subjects in which interest was displayed were the working of the Police, the Presidency College strike, the Government of India Amendment Act and the representation of India on the Imperial War Conference. **Topics discussed in the Press.**

Literary Societies.

See—

General Administration Report for 1911-12, Part II, Pages 278-279.

Arts and Sciences.

574. The number of students on the rolls of the school on the 31st March 1917 was 282 as against 276 on the corresponding date of 1916. The attached hostel proved a great boon and on an average there were 32 boarders living in it under satisfactory conditions. At the Final Examination of the school held in 1916-17, 31 candidates appeared and 28 qualified for certificates. The total expenditure incurred during the year 1916-17 was Rs. 41,173 as compared with Rs. 33,655 in 1915-16. **Government Art School, Calcutta.**

575. The proposal to amalgamate the art collections of the Museum with those of the Art Section was given effect to on the 1st April 1911. Since the amalgamation of the old Art Ware Court with the Government Art Gallery there have been some noticeable additions to the collections. Advantage was taken of a number of specimens of Nepalese and Tibetan work coming on the market to obtain some unique art productions of Central Asia for popularizing art collections. The system inaugurated by the Government of Bengal of giving lectures was continued. Since 1913, three lectures have been delivered. They were well attended. The last lecture was given in February 1916, the subject being "The Arts of Tibet". **Government Art Gallery, Calcutta.**

576. According to the returns there were four other schools of art in the Presidency with 385 pupils reading in them. In 1915-16 the corresponding figures were 3 schools and 342 pupils. During the year 1916-17 the expenditure on these schools was Rs. 20,077 of which Rs. 1,650 was contributed by Government. **Other Schools of Art.**

577. There were 4 music schools teaching Indian pupils music, in the district of Bankura, with a total of 50 pupils. In 1915-16 the corresponding figures were 3 schools and 37 pupils. There is also a school of Indian music in Calcutta. A Calcutta School of Music, giving high-class instruction in Western music to European and Indian pupils, has recently been established. It promises to be a valuable institution. **Music Schools.**

578. On the 31st March 1917 there were 284 students on the rolls of the college. The numbers in the various departments were 83 in the Engineer Department, 154 in the Apprentice Department and 47 in the Artisan Department. The total number of Muhammadans attending the college on the 31st March 1917 was 14, and of these, 8 were in the artisan classes. The number **Civil Engineering College, Sibpur.**

of students classified according to race or creed in the various departments of the college on the 31st March 1917 was as follows :—

	Engineer Department.	Apprentice Department.	Artisan Department.
Europeans and Anglo-Indians ...	4	35	...
Hindus	77	114	39
Muhammadans	2	4	8
Indian Christians	...	1	...

The total expenditure on the college during the year 1916-17 amounted to Rs. 2,33,795, the cost from Provincial revenues being Rs. 2,09,750 as against Rs. 2,21,302 and Rs. 1,92,432, respectively, in 1915-16. In 1916-17 11 candidates appeared at the B. E. Examination and 6 or 54·5 per cent. passed ; 37 appeared at the I. E. Examination and 13 or 35·1 per cent. passed.

The rules of the college have been revised during the year 1916 by a special committee consisting of Messrs. Hornell, Heaton and Green. The revised rules are under the consideration of Government.

Dacca School of Engineering.

579. On the 31st March 1917 there were 118 students on the rolls of the school. Of these, 108 were Hindus, 7 Muhammadans and 3 Indian Christians. In addition there were 56 artisans receiving instruction in the school on the 31st March 1917. The school had the privilege of preparing candidates for the Overseer Examination in Mechanical and Electrical Engineering. But when Dacca became a part of the Presidency of Bengal the Mechanical and Electrical Branch was abolished with effect from the 1st April 1916, as it was found unnecessary to develop and maintain two separate institutions in the same Presidency for teaching the Mechanical and Electrical course.

Mining instruction in the Coal-fields.

580. The part-time classes in the coal-fields have been continued successfully at 3 centres in Bengal and 2 in Bihar and Orissa ; Mr. H. C. Read visiting these centres in rotation to give the lectures.

In addition special classes were held for instruction in mine surveying. At the sessional examination 17 passed as against 18 in 1915-16. In 1916 the Government of India sanctioned an honorarium of Rs. 1,000 to Mr. E. H. Roberton for the compilation of two manuals on mining and mine surveying. The local Government also sanctioned an honorarium of Rs. 300 to Babu Hemanta Kumar Sen for the work of translating these manuals. These honoraria will be paid when the manuals are ready and have been approved by the Mining Education Advisory Board.

Pleaders' Survey Examination.

581. During the year under review there were 15 candidates for the Pleaders' Survey Examination of whom only 1 passed.

A proposal has been made for giving instruction regarding old and modern revenue maps and plans. This would take the shape of lectures to be delivered at the University Law College by Major Hirst, for which a special remuneration is to be given. Government has sanctioned a grant of Rs. 450 for the purchase of slides as an accessory to the proposed lectures.

Survey Education.

582. The survey classes at the Dacca School of Engineering were closed in January 1915 after the establishment of a Survey School at Mainamati under the Government Survey Department. In January 1917 a scheme was submitted to Government for the revival of the *amin* classes at Dacca and the linking up of the Dacca classes with the Mainamati Survey School by providing that successful *amin* students at Dacca might enter the second year class at Mainamati, if their knowledge of English was found to be adequate. The scheme was sanctioned by Government in April 1917. It is intended to bring the existing survey classes at Rangpur, Rajshahi and Pabna into line with the new *amin* classes at Dacca, a one-year course being adopted, and to have a common examination for all four schools.

Joint Technical Examination Board.

583. The following major institutions are affiliated to the full (upper subordinate) standard :—

(1) The Civil Engineering College, Sibpur.

(2) The Dacca School of Engineering.

(3) The Bihar School of Engineering.

The Overseer course has two branches—(1) the Civil, (2) the Mechanical and Electrical. The Sibpur College is the only institution which teaches both branches.

In 1917, 70 candidates appeared at the Overseer Examination of whom 49 passed as against 98 and 61, respectively, in 1916. At the Sub-Overseer Examination 135 candidates appeared and 92 passed as against 151 and 96, respectively, in 1916.

A proposal to introduce a three-year Civil Overseer course at Sibpur and Dacca in place of the present four-year course, is now under the consideration of Government.

City and Guilds of London Institute Technological Examinations.

584. The City and Guilds of London Institute Examinations are held annually in the months of April and May in Calcutta and at Serampore. For practical work in engineering subjects candidates have to appear at the Sibpur College. In 1916, 42 candidates appeared in textile subjects and 27 in non-textile subjects. Of these 28 passed in the former subjects and 9 in the latter.

Government Weaving Institute, Serampore, and outlying centres.

585. The institute serves as a centre from which instruction is given to weavers through weaving schools organized at different centres of the industry. There are 5 outlying centres giving a practical course of 3 to 6 months' duration, viz., (1) Bankura, (2) Cox's Bazar, (3) Malda, (4) Pabna and (5) Tangail. The schools are, as a rule, started on an experimental basis for one year in the first instance, and made permanent after that period if found successful. The Pabna and Tangail schools have not as yet been made permanent. A proposal has been submitted to Government for carrying on the work of the auxiliary schools through peripatetic instructors who will travel about and demonstrate the use of fly-shuttle looms to the actual weavers in or at centres near to their own homes.

On the 31st March 1917 there were 78 students on the rolls of the Serampore Weaving Institute and 56 students attending the district schools. The expenditure incurred during the year on the former amounted to Rs. 30,167 and that on the latter to Rs. 5,835. Out of a total of 61 students who completed the course of training in the higher classes during the last 5 years, 57 were successful in getting service on salaries ranging from Rs. 20 to Rs. 200.

A scheme has now been introduced, with the sanction of Government, for the provision of loans to enable passed weaving pupils to buy improved looms and material. The scheme promises to be popular and successful.

Schools for juvenile offenders.

586. The draft children's bill drawn up by Mr. Melville is still under the consideration of Government.

Government Commercial Institute, Calcutta.

587. During the period under review the institute remained under the charge of Mr. G. K. Sen, the Officiting Principal, who is assisted by a staff of Indian teachers for both the day and evening classes. The number of students on the rolls of the institute in the day and evening classes in the beginning of the session rose from 230 in 1915-16 to 276 in 1916-17. Of the 276 students in 1916-17, 83 joined the day classes and 193 the evening classes. The total expenditure on the institute for 1916-17 was Rs. 20,584 of which Rs. 16,388 came from Provincial revenues and Rs. 4,196 from fees.

At the final examination held in 1917, 2 candidates passed out of 13 and at the special examinations 36 passed out of 67.

"B" Classes.

588. The "B" Class attached to the Barisal Zilla School was closed in 1917. There is a proposal to start a "B" Class at the Darjeeling High English School. The "B" Classes are not likely to flourish so long as the University Matriculation Examination dominates the secondary school curriculum.

During 1916-17, 46 candidates appeared at the "B" Class final examination and 25 passed.

CHAPTER VIII.—ARCHÆOLOGY.

Archæology.

[Annual Report of the Archæological Survey of India, Eastern Circle, for 1916-17.]

Establishment.

589. Dr. Spooner was in charge of the Eastern Circle throughout the year, except for a period of one month, viz., from the 5th June to 4th July during which he officiated as Director-General of Archæology. Mr. Panday acted for him during this period and in December 1916 was appointed Assistant Superintendent.

Monuments and Antiquities.

590. No new conservation work was undertaken during the year. The total expenditure on special and annual repairs amounted to Rs. 24,533. The repairs undertaken in connection with the temple of Jayadeva at Kenduli in the district of Birbhum, the four temples in Brindaban Chandra Math at Guptipara in the district of Hooghly, the tomb of Khan Jahan Ali at Masjidpur in the district of Khulna and the Chika mosque at Gaur in the district of Malda have been completed. Work is still in progress on fourteen temples at or near Vishnupur in the district of Bankura, the Jatar Deul temple in the Sundarbans in the district of the 24-Parganas, the Sätgumbaz mosque and Khan Jahan Ali's tomb at Bagerhat in the district of Khulna and the cloisters of the Adina mosque at Pandua in the district of Malda.

During the year eight ancient monuments of historical or archæological interest were declared to be protected monuments under the Ancient Monuments Preservation Act (Act VII of 1904), and agreements for the preservation of six monuments were made with the owners under section 5 of the Act.

Working of the Treasure Trove Act, VI of 1878.

591. Two finds of coins were reported from the district of Rajshahi. They were not acquired under the Treasure Trove Act as they were either old British coins or coins struck at Murshidabad in the name of the Emperor Shah Alam. Two good specimens of punch-marked coins found in Burdwan were acquired under the Act and presented to the Indian Museum.

A black stone image of Vishnu of the *trivikarma* form and supposed to belong to mediæval times was found at Deora in the district of Faridpur. It was acquired under the Treasure Trove Act and presented to the Dacca Museum.

CHAPTER IX—MISCELLANEOUS.

Ecclesiastical Jurisdiction.

See—

General Administration Report for the year 1911-12, Part II, Page 282.

Ecclesiastical.

592. The Ecclesiastical establishment in Bengal during the year 1916-17, paid entirely or in part by Government, consisted of the Lord Bishop of Calcutta, the Archdeacon of Calcutta, the Domestic Chaplain to the Bishop, the Registrar of the Diocese, 11 Chaplains of the Church of England, 2 Chaplains of the Church of Scotland, 8 Clergymen of the Additional Clergy or other Societies, the Most Reverend Archbishop Dr. Brice Meuleman, S. J., and 4 Priests of the Roman Catholic Church. **Establishment.**

Chemical Examiner's Department.

[Report of the Chemical Examiner for the year 1916. Statistics of British India, Part VI—Administrative and Judicial.]

593. Rai Chuni Lal Basu Bahadur, First Assistant Chemical Examiner, held charge of the department throughout the year. **General.**

594. The appointment of the Imperial Serologist and his staff, which was at first sanctioned on an experimental basis, was made permanent during the year. Lieut.-Col. W. D. Sutherland, I.M.S., continued to conduct this work. **Serology.**

595. The total number of analyses performed in the General Analytical Department during the year was 3,125 as compared with 9,225 in the previous year. This decrease occurred chiefly in the samples of confiscated cocaine, which are now ordinarily examined departmentally by the Commissioner of Excise. **Total of cases.**

596. In the Medico-legal Department 1,820 cases were examined as against 1,792 in the previous year; the increase of 28 cases is attributed to an increase in the number of human poisoning cases, and of stain cases. The total number of articles examined was 3,185 as against 3,243 in the preceding year. The total number of specimens of viscera examined in suspected human poisoning cases was 868 as compared with 794 in 1915, but the percentage of detection was smaller, viz., 41·96 per cent. against 47·76 in the previous year. As usual, opium was the most common form of poison detected. In suspected animal poisoning cases, the percentage of detection fell from 67·47 in 1915 to 61·16 in 1916. **Medico-legal cases.**

Veterinary Department.

[Report of the Veterinary College and of the Civil Veterinary Department, Bengal, for the year 1916-17.]

597. The number of students at the Bengal Veterinary College at the end of the session was 148, of whom 54 came from Bengal, 46 from Bihar and Orissa, 21 from Assam, 11 from the United Provinces, 7 from Madras, 2 from the Central Provinces, 5 from Burma, 1 from Ceylon and 1 from Port Blair. One hundred and forty-six students appeared at the examination and 111 passed. Twenty-five students graduated from the College and the percentage of passes was 71·43. **Bengal Veterinary College.**

College Hospital.

598. During the year 2,926 cases were treated and 1,025 operations were performed at the College. There were 5,797 prosecutions under the Prevention of Cruelty to Animals Act but only 504 animals were sent to the hospital for treatment.

Glanders and Farcy Act.

599. In Calcutta and its neighbourhood all stables lying in the area under the Glanders and Farcy Act were regularly inspected during the year and the disease was detected in 9 stables. Six stables were also found infected with *surra*. In the mufassal there were 67 deaths from glanders against 80 in the previous year.

Previously the Glanders and Farcy Act was in force in only a few localities in Eastern Bengal. During the year it was extended to the whole of the Presidency to avoid the serious inconvenience of hurriedly extending it to an affected area after the outbreak of disease. Greater facilities were given for the administration of the Act by assigning the duties of "Inspectors" to all Veterinary Assistants and those of "Practitioners" to all Inspectors and Deputy Superintendents of the department. The statutory rules of Western and Eastern Bengal were also co-ordinated during the year.

Civil Veterinary Department.

600. The total number of deaths from contagious diseases is reported as 8,415 against 10,725 in the preceding year.

The disease which accounts for the loss of the largest number of cattle in Bengal is rinderpest. During the year this disease was less prevalent than usual in the mufassal. The following figures illustrate the fluctuations of rinderpest during the past four years :—

	Number of deaths reported.	Number of outbreaks attended.	Number of animals inoculated.	Average number of animals inoculated at each outbreak attended.
1913-14	10,318	210	23,836	113
1914-15	13,662	340	37,813	111
1915-16	8,893	284	38,950	137
1916-17	5,443	161	20,498	127

In Calcutta and its suburbs there were 57 outbreaks of rinderpest compared with 28 in the previous year.

Dispensaries.

601. One new dispensary was opened during the year making a total of 25. The total number of cases treated at dispensaries was 37,785 against 29,349 in the previous year.

Breeding of cattle.

602. The number of stud bulls kept by Government and local bodies decreased from 83 to 71. Several applications from District Boards were received during the year for the supply of good stud bulls and attempts were made by the department to procure suitable bulls from the Garo Hills but without success.

Staff.

603. The subordinate staff of the Civil Veterinary Department consisted of one Deputy Superintendent, 6 Inspectors, 4 Staff Veterinary Assistants, 6 Reserve Assistants and 72 District Veterinary Assistants. Seven Veterinary Assistants of the department were on military duty during the year.

Zoological Garden, Calcutta.

[Annual Report of the Honorary Committee for the year 1916-17.]

Finance and Statistics.

604. The financial condition of the garden during the year under report was very satisfactory. The entrance receipts amounted to Rs. 50,024-11, an increase of Rs. 5,691-14 over those of the previous year. Including the Government contribution of Rs. 20,000 the total receipts amounted to Rs. 1,15,276-15-3 and the total expenditure to Rs. 94,028-0-8, leaving a closing balance of Rs. 21,161-9-7. During the year 671,495 persons, 73,471 more than last year, visited the garden. The number of mammals, birds, and reptiles in the garden at the close of the year was 318, 1,975 and 263, respectively, against 351, 1,940 and 198 of the previous year. The garden was, as usual, open free to the public one day in each month, and 28,619 persons availed themselves of the concession.

The War.

The War.

605. Such hostile aliens as were in Bengal continued to be interned at the Civil Detention camps at Takdah, Berhampur and Bankura, while a few were, for special reasons, released on parole and allowed to live under supervision at their places of residence. During the year the camp at Katapahar was transferred to Takdah as the military authorities required the Katapahar barracks for British troops.

Contribution and war work.

606. A number of individuals, firms and associations throughout Bengal rendered special services in connection with the war. Contributions were made liberally to war funds and for the provision of motor ambulances and other objects connected with the war.

The Calcutta Volunteer Battery returned to India after serving in East Africa for about two years. A Motor Machine Gun Battery was organized in Calcutta, and Motor Cyclist Despatch Riders, Motor Transport Drivers and others continued to be recruited in Bengal for service at the front.

Bengali Double Company.

607. Early in the year a number of leading men in the Presidency offered to raise a regiment of Indian Territorial troops. The scheme subsequently underwent considerable modification and ultimately the Government of India sanctioned the formation of a Bengali Double Company on the same terms as are offered to men enlisting in the Indian Army. The company was completed in November 1916 and sent to Nowshera for training. The Government of India have since decided to raise the strength of the force to a battalion with reserves.

The Indian Defence Force.

608. During the year under review the Government of India decided to introduce compulsory military service for European British subjects in India and passed the Registration Ordinance, 1917 (Ordinance No. I of 1917), in order to ascertain the number of persons who would be liable to such service. The Indian Defence Force Act was subsequently passed defining the liability of persons thus registered under the Registration Ordinance. Rules were framed to carry out the purposes of the Act and widely published for general information. Provision was made in the Act for *voluntary* military service by persons other than European British subjects.

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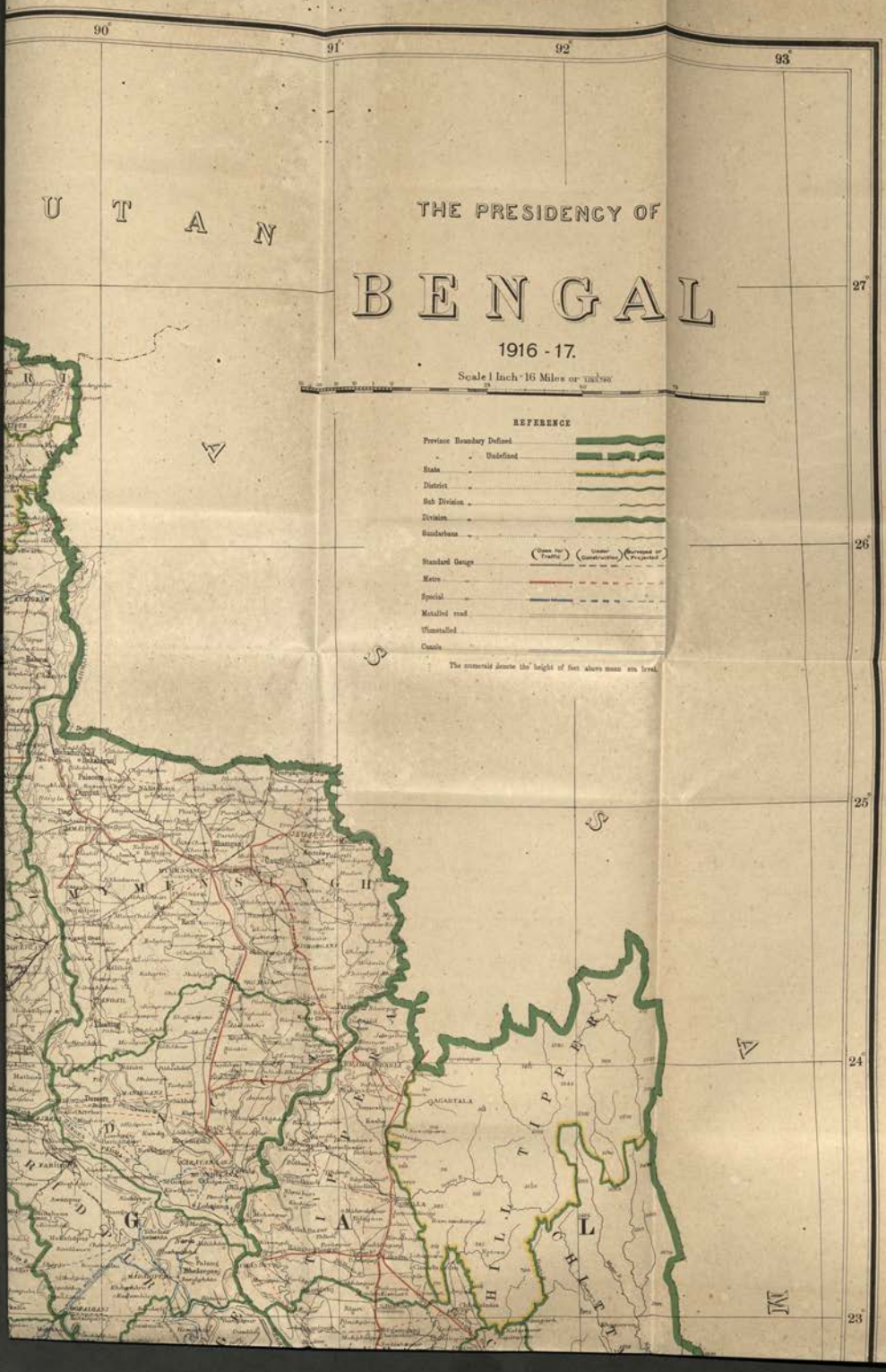
90°
91°
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THE PRESIDENCY OF
BENGAL
1916 - 17.
Scale 1 Inch = 16 Miles or 1/1000000
REFERENCE
Province Boundary Defined
Undefined
State
District
Sub Division
Division
Sundarbans
Standard Gauge
Metre
Special
Metalled road
Unmetalled
Canals
The numerals denote the height of feet above mean sea level.
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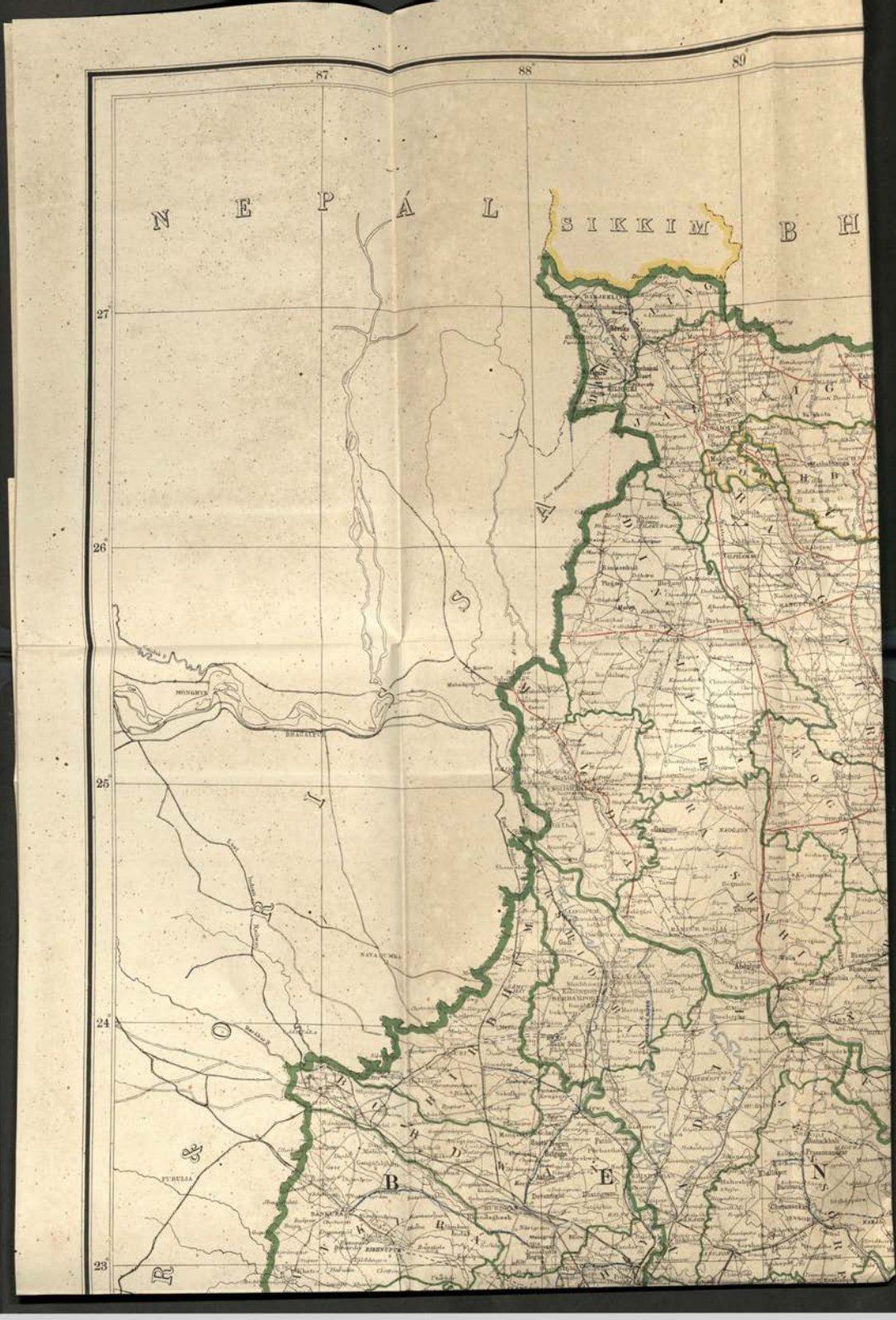
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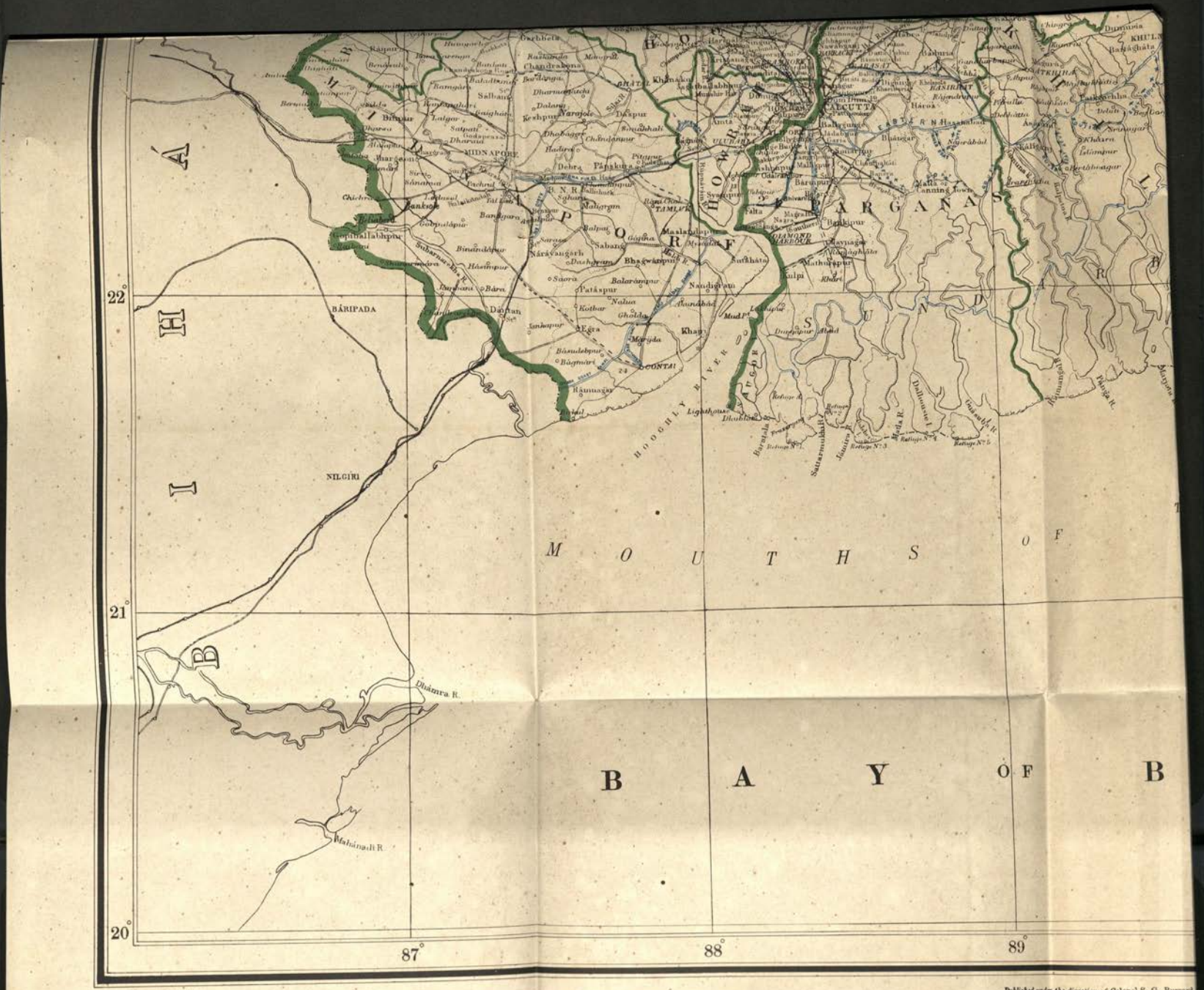
BÁRIPADA
NILGIRI
MIDNAPORE
HIJÁLI
BALASORE
CONTAI
Dhámra R.
Mahánadi R.
Hooghly River
Saugor
Lighthouse
Dhublat
Mud Pt.
Kalpi
Diamond Harbour
Kulpi
Mathurapur
Baruipur
Falta
Garden Reach
Fort William
CALCUTTA
Howrah
Sibpur
Bhatpara
Naihati
Kanchrapara
Titagarh
Barrackpur
Serampur
Chandernagore
Hooghly
Chinsura
Konnagar
Uluberia
Bauria
Sankrail
Kharagpur
Jhargram
Midnapore
Tamluk
Contai
Rasulpur R.
Haldi R.
Dalhousie I.
Saltarmukhi R.
Jamira R.
Mooria R.
Rasulpur R.
Hijili R.
Kasai R.
Rupnarain R.
Hooghly R.
Damodar R.
Rupnarain R.
Refuge No. 1
Refuge No. 2
Refuge No. 3
Refuge No. 4
Refuge No. 5
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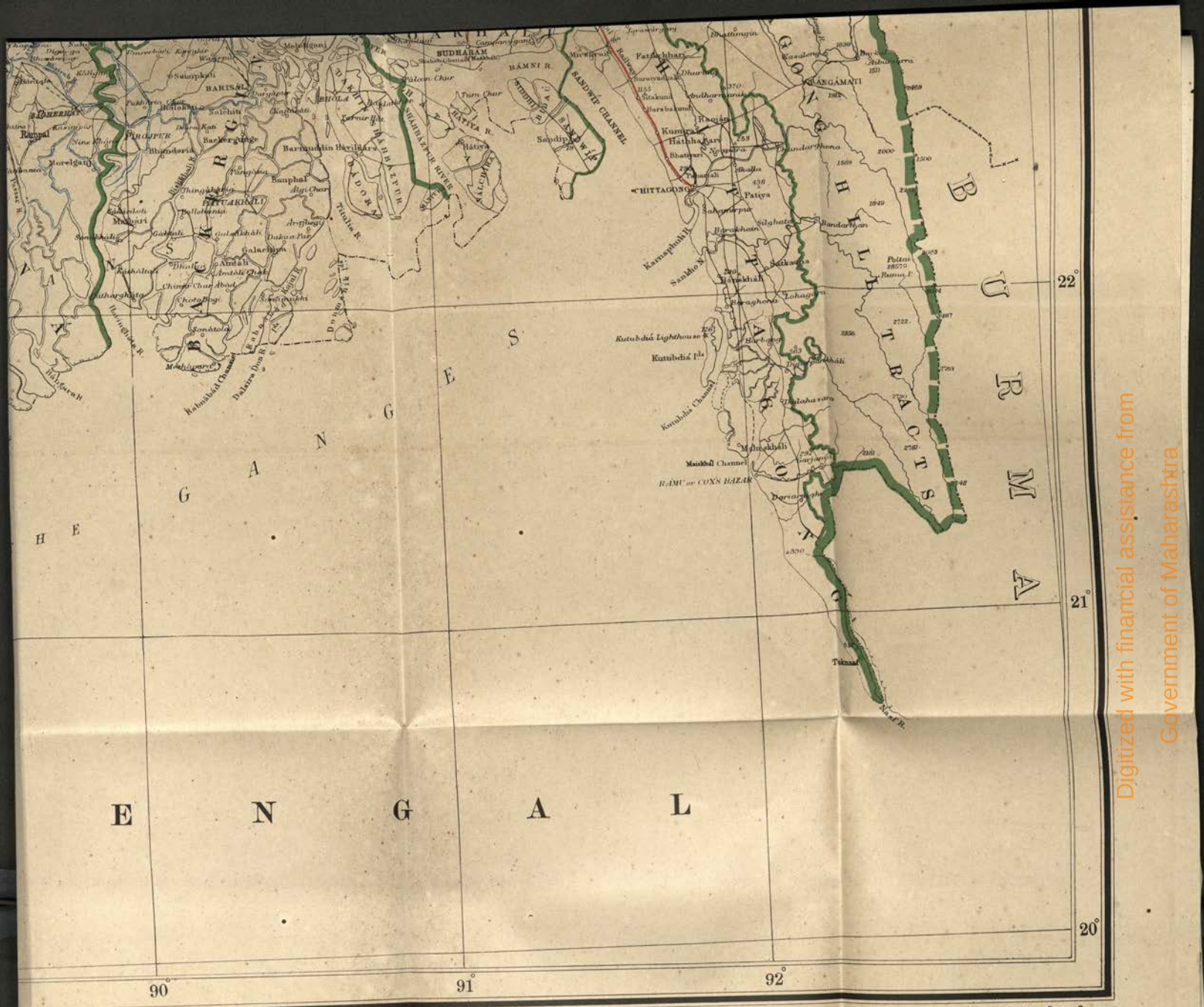
Refuge No. 13
Refuge No.


BENGAL
BURMA
BAY OF BENGAL
CHITTAGONG
CHITTAGONG HILL TRACTS
RÁMU or COX'S BAZAR
Kutubdia Lighthouse
Kutubdia I.
Maikhali Channel
Matamuhari R.
Sangu R.
Kumira
Patiya
Sandwip
SANDWIP CHANNEL
SUDHARAM
BÁMNI R.
BARISAL
BAKARGANJ
Bhandaria
Barhergunge
Morelganj
Bauphal
Galachipa
Amtali
Dhalua
Kuhaliah
Kuhariyhata
Sonatola
Mehiyara
Patuakhali
Dakua Par
Tiuliya R.
Dakatia R.
Shahbazpur River
Hátiya R.
Hátiya
Sandip
Fatikchari
Hathazari
Bhatiari
Chandanpura
Sakarpura
Bandarban
Silghata
Sitakund
Barabkund
Kasalong
RANGAMATI
Tekmal
Na-af R.
Kanaphuli R.
Sangu R.
Matamuhari R.
Rathibhid Channel
Dakatia Dua R.
Kabadak R.
Dudhkumar R.
Bhatiagin
Gorai Railway
Mirsarai
Kumira
Hathazari
Patiya
Sakarpura
Bandarban
Silghata
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